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ELECTRONICS PRINCIPLES OVERSEAS SUPPLEMENT TO THE MISSILE MAINT--ETC(U)
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9 OCCUPATIONAL SURVEY REPORT. *P.S.*

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6 ELECTRONICS PRINCIPLES OVERSEAS SUPPLEMENT
TO THE MISSILE MAINTENANCE CAREER LADDER
AFSCs 31631L, 31651L, 31671L, AND 31693

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OCCUPATIONAL SURVEY BRANCH
USAF OCCUPATIONAL MEASUREMENT CENTER
LACKLAND AFB TEXAS 78236

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PREFACE

This report summarizes the results of a survey of Electronics Principles utilized by Missile Maintenance personnel, AFSC 31631L, 31651L, 31671L and 31693, assigned to overseas locations. This report supplements the previous Electronics Principles Occupational Survey Report for the Missile Maintenance Career Ladder, AFPT 90-316-222, dated 5 November 1976, which covered only positions assigned to selected bases within the CONUS.

The Electronics Principles Inventory (EPI) was developed by Major Thomas J. O'Connor and Mr. Hendrick W. Ruck and the survey data were analyzed by Mr. Guy B. Cole. This report has been reviewed and approved by Major Walter F. Kasper, Chief, Operations/Support Career Ladders Analysis Section, Occupational Survey Branch, USAF Occupational Measurement Center, Lackland AF, Texas, 78236.

Computer programs for analyzing the data were designed by Dr. Raymond F. Christal, Occupational and Manpower Research Division, Air Force Human Resources Laboratory (AFHRL), and were written by the Project Analysis and Programming Branch, Computational Sciences Division, AFHRL.

Distribution of this report is made upon request to the USAF Occupational Measurement Center, attention of the Chief, Occupational Survey Branch (OMY), Lackland AFB, Texas 78236.

This report has been reviewed and is approved.

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ELECTRONICS PRINCIPLES OVERSEAS SUPPLEMENT TO THE
MISSILE MAINTENANCE CAREER LADDER
AFSCs 31631L, 31651L, 31671L, AND 31693

INTRODUCTION

↘ This report summarizes the results of an Electronics Principles survey of Missile Maintenance personnel assigned overseas and supplements the EPI report for the Missile Maintenance career ladder (AFPT 90-316-222, dated 5 November 1976) which was restricted to a selected sample of CONUS personnel. ↙

ADMINISTRATION

The inventory booklet used in this survey was identical to that used in collection of data for the CONUS report. Consolidated base personnel offices in operational units overseas received the inventory booklets for administration to incumbents holding DAFSCs 316X1L and 31693. Survey administration was accomplished between 9 November 1976 and 8 February 1977. Completed survey booklets were received from 280 incumbents or 75 percent of the 375 personnel assigned to overseas locations, as reflected on the September 1976 Uniform Airman Record. The following results were based on those responses.

SUMMARY OF BACKGROUND INFORMATION

There were no significant differences between background information items reported for CONUS personnel and respondents in overseas jobs. For example, Table 1 shows that 43 percent of the overseas personnel reported that their job was dull compared to 41 percent for CONUS personnel. Additionally, as shown in Table 2, over 60 percent of the overseas respondents reported that their talents and training were used very little or not at all. This was almost identical to responses from CONUS personnel. Table 3 shows very little difference in utilization of test equipment by CONUS and overseas personnel.

Ground equipment operation is shown in Table 4. There were relatively small differences reported between these groups. However, considerably more of the CONUS group operated farm tractors while portable hoists, air compressors (MB-1), and test stands (MUH 32 E/U) were operated by from 17 to 20 percent more of the overseas personnel.

TABLE 1
JOB INTEREST
(PERCENT RESPONDING)

	CONUS N=202	OVERSEAS N=280
I FIND MY JOB:		
DULL	41	43
SO-SO	27	18
INTERESTING	32	39

TABLE 2
PERCEIVED UTILIZATION OF TALENTS AND TRAINING
(PERCENT RESPONDING)

	CONUS N=202	OVERSEAS N=280
MY JOB UTILIZES MY TALENTS:		
VERY LITTLE OR NOT AT ALL	63	60
FAIRLY WELL	27	25
QUITE WELL TO PERFECTLY	10	15
MY JOB UTILIZES MY TRAINING:		
VERY LITTLE OR NOT AT ALL	61	63
FAIRLY WELL	30	25
QUITE WELL TO PERFECTLY	9	12

TABLE 3
COMMON TEST EQUIPMENT USED
(20% OR MORE PERFORMING)

	CONUS N=202	OVERSEAS N=280
MULTIMETER	74	74
IGNITER TEST SET	72	68
DIGITAL VOLTMETER	56	63
FREQUENCY METER	54	51
OSCILLOSCOPE	51	63
ALIGNMENT FIXTURE	48	44
POWER SUPPLY (DC)	45	55
ELECTRONIC COUNTER	45	43
POWER SUPPLY (AC)	44	44
AUDIO SIGNAL GENERATOR	40	51
DIFFERENTIAL VOLTMETER	39	49
VACUUM TUBE VOLTMETER (AC)	36	22
DECADE RESISTOR	35	49
RF SIGNAL GENERATOR	26	30

TABLE 4
GROUND EQUIPMENT OPERATED
(20% OR MORE PERFORMING)

	CONUS N=202	OVERSEAS N=280
TRACTOR (FARM)	77	33
MISSILE TRAILER (MHV-12)	73	72
HOIST FIXED	70	69
AIR COMPRESSOR (MCIA)	63	60
FORKLIFT	62	59
TEST STAND (MVH 32 E/U)	59	77
POWER GENERATOR (MD-2)	41	50
BOMB LIFT (MJ-4)	40	42
LIGHTTALL (NF-2)	38	45
BOMB LIFT (MJ-1)	37	44
POWER GENERATOR (MD-1)	22	26
AIR COMPRESSOR (MC-2)	22	24
HOIST PORTABLE	21	38
AIR COMPRESSOR (MB-1)	20	40

ELECTRONICS PRINCIPLES APPLICATION

Overseas personnel in this career ladder, like their counterparts in CONUS, employ few electronics principles in their job. Of the 1,257 items in the inventory, only 43 items were answered "yes" by 30 percent or more of the overseas respondents. This contrasts to 34 items answered "yes" by 30 percent or more of the CONUS personnel.

Table 5 shows subject areas with reasonable utilization of electronics principles reflected by respondents to the CONUS and overseas surveys. The electronics principles used by 30 percent or more of both groups were within the same subject areas. The one exception is "antennas", where 30 percent or more of the overseas group marked "yes" to two items.

Slight differences were found between the CONUS and overseas groups concerning subject areas with limited utilization (at least one response marked by 11 percent to 29 percent of the sample). Overseas personnel reflected limited utilization in 14 subject areas, as shown in Table 6. These were the same areas as shown for CONUS personnel except for "antennas" and "electron tubes". Three additional subject areas identified in this category by overseas personnel were: transistors, cable fabrication, and lasers. Significantly, less than 11 percent of the overseas respondents used any principles relating to input/output devices while the CONUS respondents had indicated limited utilization on this duty.

Detailed information concerning percent members marking "yes" to survey items is included in the appendix of this supplementary report. GPSUM1 is a summary of responses by all airmen responding to the survey and by DAFSC groups. GPSUM2 summarizes responses by time in career field groups.

CONCLUSION

Differences in electronics principles application between CONUS and overseas groups within the L shred of the Missile Systems Maintenance career ladder were minor and do not significantly alter the findings of the CONUS report.

TABLE 5

SUBJECT AREAS WITH REASONABLE UTILIZATION
(AT LEAST ONE RESPONSE MARKED BY 30% OR MORE OF THE SAMPLE)

	<u>CONUS</u>	<u>OVERSEAS</u>
MATHEMATICS	X	X
DIRECT CURRENT AND VOLTAGE	X	X
RESISTANCE	X	X
MULTIMETER USES	X	X
ALTERNATING CURRENT	X	X
SOLDERING	X	X
OSCILLOSCOPES	X	X
POWER SUPPLIES	X	X
USE OF SIGNAL GENERATORS	X	X
METER MOVEMENTS	X	X
ANTENNAS		X
INFRARED	X	X

TABLE 6

SUBJECT AREAS WITH LIMITED UTILIZATION
(AT LEAST ONE RESPONSE MARKED BY 11% TO 29% OF THE SAMPLE)

	<u>CONUS</u>	<u>OVERSEAS</u>
INDUCTORS AND INDUCTIVE REACTANCE	X	X
CAPACITORS AND CAPACITIVE REACTANCE	X	X
TRANSFORMERS	X	X
MAGNETISM	X	X
RELAYS	X	X
TRANSISTORS		X
SOLID-STATE SPECIAL PURPOSE DEVICES	X	X
ELECTRON TUBES	X	
COUNTERS	X	X
TIMING CIRCUITS	X	X
MOTORS AND GENERATORS	X	X
ANTENNAS	X	*
WAVEGUIDES AND CAVITY RESONATORS	X	X
CABLE FABRICATION		X
INPUT/OUTPUT DEVICES	X	
LAZERS		X

* Performed by over 30% of the overseas group - see Table 1

APPENDIX

APPENDIX

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3	GRSUM2	PCT MARS PERF TASKS BY AFMS GRPS	47	
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PCT HOURS PERFORM TASKS BY DAFSC GRPS

TABULATION OF PERCENT MEMBERS PERFORMING TASKS AND DUTIES BY DAFSC GROUPS
IN THE 316X1L/93 CANCER FIELD.

REPORTS ON THE FOLLOWING GROUPS WERE REQUESTED

GROUP IDENTITY = SPL001	ALL OS AIRMEN IN 316X1L/93 CAR FLD	CONTAINING	280 MEMBERS.
GROUP IDENTITY = SPL002	ALL OS AMN DAFSC 31631L	CONTAINING	16 MEMBERS.
GROUP IDENTITY = SPL003	ALL OS AMN DAFSC 31651L	CONTAINING	179 MEMBERS.
GROUP IDENTITY = SPL004	ALL OS AMN DAFSC 31671L	CONTAINING	71 MEMBERS.
GROUP IDENTITY = SPL005	ALL OS AMN DAFSC 31693	CONTAINING	10 MEMBERS.

GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DUTY				
	SPL 001	SPL 002	SPL 003	SPL 004	SPL 005
A MATHEMATICS, DIRECT CURRENT, VOLTAGE, AND RESISTANCE	88	88	89	83	80
B MULTIMETER USES, ALTERNATING CURRENT, INDUCTORS, AND INDUCTIVE CAPACITORS, CAPACITIVE REACTANCE, TRANSFORMERS, AND MAGNETISM	40	44	39	37	60
C RCL CIRCUITS, SERIES AND PARALLEL RESONANCE (TIME CONSTANTS), AND FILTERS	10	0	8	11	50
E COUPLING, SOLDERING, AND RELAYS	40	6	39	48	50
F MICROPHONES, SPEAKERS, AND OSCILLOSCOPES	55	38	60	52	40
G SEMICONDUCTOR DIODES, TRANSISTORS, AND TRANSISTOR AMPLIFIERS	17	0	13	30	40
H SOLID STATE SPECIAL PURPOSE DEVICES, POWER SUPPLIES, AND OSCILLATORS	51	38	51	54	60
I MULTIVIBRATORS, LIMITERS, CLAMPERS, AND ELECTRON TUBES	6	0	3	14	10
J ELECTRON TUBE AMPLIFIERS, AND CIRCUITS, SPECIAL PURPOSE ELECTRON TUBES, HETERODYNING, MODULATION, AM SYSTEMS, FM SYSTEMS, AND NUMBERING SYSTEMS	5	0	4	8	10
L LOGIC FUNCTIONS, BOOLEAN EQUATIONS, AND COUNTERS	24	13	26	24	0
M TIMING CIRCUITS, USE OF SIGNAL GENERATORS, MOTORS, AND GENERATORS	54	38	56	52	50
N METER MOVEMENTS, SATURABLE REACTORS, MAGNETIC AMPLIFIERS, AND WAVEFORMING CIRCUITS	58	56	62	54	40
O SINGLE SIDEBAND SYSTEMS, PULSE MODULATION SYSTEMS, AND ANTENNAS	31	44	39	11	30
P TRANSMISSION LINES, WAVEGUIDES AND CAVITY RESONATORS, AND MICROWAVE AMPLIFIERS AND OSCILLATORS	26	6	30	24	10
Q REGISTERS, STORAGE DEVICES, AND DIGITAL TO ANALOG CONVERTERS	7	0	9	4	0
R PHOTODIODES, SCHMITT TRIGGERS, AND CABLE FABRICATION	16	13	15	20	30
S INPUT/OUTPUT DEVICES, PHOTO SENSITIVE DEVICES, AND SYNCHRONOUS VIBRATIONS	14	19	16	8	10
T INFRARED, LASERS, AND DISPLAY TUBES	50	69	50	49	30
U PROGRAMMING, DB AND POWER RATIOS	10	6	7	20	20

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPL SPL SPL SPL
001 002 003 004 005

A 1 A1-01 DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO
A 2 A1-02 DO YOU USE PUBLICATIONS, SUCH AS A TECHNICAL ORDERS
ON MAINTENANCE MANUALS, IN WHICH IT IS NECESSARY FOR YOU
A 3 A1-03 DO YOU REARRANGE AND SOLVE FORMULAS OR EQUATIONS.
A 4 A1-04 DO YOU CALCULATE THE SQUARE ROOT OF A QUANTITY.
A 5 A1-05 DO YOU SOLVE FOR UNKNOWN QUANTITIES.
A 6 A1-06 DO YOU CONVERT NUMBERS TO LOGARITHMS.
A 7 A1-07 DO YOU USE LOGARITHM TABLES IN ANY TYPE OF
CALCULATIONS.
A 8 A1-08 DO YOU SOLVE QUADRATIC EQUATIONS.
A 9 A1-09 DO YOU USE THE NATURAL SYSTEM OF LOGARITHMS.
A 10 A1-10 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES.
A 11 A1-11 DO YOU WORK WITH TRIGONOMETRIC FUNCTIONS SUCH AS
SINE, COSINE, OR TANGENT.
A 12 A1-12 DO YOU DETERMINE AREAS OF PLANE FIGURES.
A 13 A1-13 DO YOU SOLVE OR USE SIMULTANEOUS EQUATIONS.
A 14 A1-14 DO YOU SOLVE OR USE PROPORTIONS.
A 15 A2-01 DO YOU USE THE TERM VOLTAGE OR VOLT (V).
A 16 A2-02 DO YOU USE THE TERM ELECTROMOTIVE FORCE (EMF).
A 17 A2-03 DO YOU USE THE TERM OHM.
A 18 A2-04 DO YOU USE THE TERM ION.
A 19 A2-05 DO YOU USE THE TERM DYNE.
A 20 A2-06 DO YOU USE THE TERM AMPERE.
A 21 A2-07 DO YOU USE THE TERM NEUTRON.
A 22 A2-08 DO YOU USE THE TERM COULOMB.
A 23 A2-09 DO YOU USE THE TERM PROTON.
A 24 A3-01 DO YOU WORK WITH RESISTORS IN YOUR PRESENT JOB.
A 25 A3-02 DO YOU INSPECT RESISTORS.
A 26 A3-03 DO YOU CLEAN RESISTORS.
A 27 A3-04 DO YOU ADJUST RESISTORS.
A 28 A3-05 DO YOU CHECK OHMIC VALUE OF RESISTORS.
A 29 A3-06 DO YOU REMOVE OR REPLACE RESISTORS.
A 30 A3-07 DO YOU USE OR REFER TO TEMPERATURE COEFFICIENTS FOR
RESISTORS ON ANY TASKS YOU PERFORM.
A 31 A3-08 DO YOU USE OR REFER TO RESISTOR SYMBOLS SUCH AS FIXED
RESISTOR SYMBOLS OR TAPPED RESISTOR SYMBOLS.
A 32 A3-09 DO YOU IDENTIFY OR CLASSIFY THE RESISTORS YOU WORK
WITH AS CARBON, FIXED WIRE, SLIDE TAP, RHEOSTAT, OR
A 33 A3-10 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE OHMIC
VALUE OF RESISTANCE.

MATHEMATICS

DIRECT CURRENT AND VOLTAGE

RESISTANCE

DE-15K

SPL SPL SPL SPL SPL
001 002 003 004 005

A 34 A3-11 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE TOLERANCE.	17	13	13	27	20
A 35 A3-12 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE FAILURE RATE.	5	13	4	4	10
A 36 A3-13 DO YOU MAKE DECISIONS IN WHICH YOU MUST DETERMINE HOW TWO OR MORE BATTERIES MUST BE CONNECTED TOGETHER TO REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES	4	6	4	10	0
A 37 A3-14 DO YOU USE OR REFER TO THE SCHEMATIC SYMBOLS WHICH REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES	32	13	27	48	30
A 38 A3-15 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES RESISTIVE CIRCUITS.	11	19	9	15	10
A 39 A3-16 DO YOU CALCULATE TOTAL CURRENT FOR SERIES RESISTIVE CIRCUITS.	9	0	8	14	10
A 40 A3-17 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES RESISTIVE CIRCUITS.	9	6	8	14	10
A 41 A3-18 DO YOU CALCULATE POWER DISSIPATION FOR SERIES RESISTIVE CIRCUITS.	5	0	5	7	10
A 42 A3-19 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES PARALLEL RESISTIVE CIRCUITS.	10	6	9	13	10
A 43 A3-20 DO YOU CALCULATE TOTAL CURRENT FOR SERIES PARALLEL RESISTIVE CIRCUITS.	8	0	7	11	10
A 44 A3-21 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES PARALLEL RESISTIVE CIRCUITS.	8	0	7	11	10
A 45 A3-22 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR SERIES PARALLEL RESISTIVE CIRCUITS.	7	6	6	10	10
A 46 A3-23 DO YOU CALCULATE POWER DISSIPATION FOR SERIES PARALLEL RESISTIVE CIRCUITS.	4	0	4	6	10
A 47 A3-24 DO YOU CALCULATE TOTAL RESISTANCE FOR PARALLEL RESISTIVE CIRCUITS.	8	6	7	13	10
A 48 A3-25 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RESISTIVE CIRCUITS.	7	0	7	11	10
A 49 A3-26 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR PARALLEL RESISTIVE CIRCUITS.	9	0	8	11	10
A 50 A3-27 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR PARALLEL RESISTIVE CIRCUITS.	7	6	6	10	10
A 51 A3-28 DO YOU CALCULATE POWER DISSIPATION FOR PARALLEL RESISTIVE CIRCUITS.	4	0	3	6	10
B 52 B1-01 DO YOU MEASURE RESISTANCE.	74	75	79	65	50
B 53 B1-02 DO YOU REPAIR OHMMETERS.	3	6	3	3	0
B 54 B1-03 DO YOU MEASURE VOLTAGE.	75	69	81	68	50
B 55 B1-04 DO YOU REPAIR VOLTMETERS.	2	6	2	1	0
B 56 B1-05 DO YOU REPAIR AMMETERS.	2	6	2	1	0
B 57 B1-06 DO YOU MEASURE CURRENT.	45	38	49	39	40
B 58 B1-07 DO YOU USE MULTIMETERS.	77	69	83	70	50
B 59 B1-08 DO YOU DIRECTLY USE A QUANTITY OF CHARGE CALLED A COULOMB.	1	0	1	0	0
B 60 B1-09 DO YOU READ SCHEMATICS.	54	31	52	63	60

MULTIMETER USES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

04-TSK

		SPL 001	SPL 002	SPL U03	SPL 004	SPL 005	
B 61	B2-01 DO YOU USE OR REFER TO THE TERM EFFECTIVE VOLTAGE (RMS).	38	19	35	45	40	
B 62	B2-02 DO YOU USE OR REFER TO THE TERM PEAK TO PEAK VOLTAGE.	44	25	45	44	70	ALTERNATING CURRENT
B 63	B2-03 DO YOU USE OR REFER TO THE TERM AVERAGE VOLTAGE (DC).	39	31	40	38	60	
B 64	B2-04 DO YOU USE OR REFER TO THE TERM WAVE LENGTH.	31	13	35	24	60	
B 65	B2-05 DO YOU USE OR REFER TO THE TERM FREQUENCY.	63	25	65	65	70	
B 66	B2-06 DO YOU USE OR REFER TO THE TERM INSTANTANEOUS VALUE.	10	0	9	14	20	
B 67	B3-01 DO YOU WORK WITH INDUCTORS OR CIRCUITS CONTAINING INDUCTORS, CHOKES, OR CHOKER COILS IN YOUR PRESENT JOB.	11	0	11	13	20	
B 68	B3-02 DO YOU INSPECT INDUCTORS.	7	6	6	8	10	INDUCTORS AND INDUCTIVE REACTANCE
B 69	B3-03 DO YOU CLEAN INDUCTORS.	4	0	4	3	0	
B 70	B3-04 DO YOU ADJUST INDUCTORS.	5	0	4	6	10	
B 71	B3-05 DO YOU REMOVE OR REPLACE INDUCTORS.	5	6	4	6	10	
B 72	B3-06 DO YOU USE OR REFER TO INDUCTANCE.	6	0	5	7	20	
B 73	B3-07 DO YOU USE OR REFER TO HENRIES.	5	6	4	6	20	
B 74	B3-08 DO YOU USE OR REFER TO INDUCTIVE REACTANCE.	5	6	4	6	10	
B 75	B3-09 DO YOU USE OR REFER TO COPPER LOSS IN INDUCTORS.	0	0	1	0	0	
B 76	B3-10 DO YOU USE OR REFER TO HYSTERESIS LOSS IN INDUCTORS.	1	0	1	3	0	
B 77	B3-11 DO YOU USE OR REFER TO EDDY CURRENT LOSS IN INDUCTORS.	1	0	1	1	0	
B 78	B3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTANCE IS PROPORTIONAL TO THE SQUARE OF THE NUMBER OF TURNS.	1	0	1	0	10	
B 79	B3-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE CROSS SECTIONAL AREA OF A COIL.	0	0	0	0	0	
B 80	B3-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS INVERSELY PROPORTIONAL TO ITS LENGTH.	0	0	1	0	0	
B 81	B3-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE NUMBER OF TURNS.	0	0	0	0	0	
B 82	B3-16 DO YOU CALCULATE INDUCTANCE FOR PARTICULAR INDUCTORS USING FORMULAS.	0	0	1	0	0	
B 83	B3-17 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS IN SERIES.	1	0	1	1	0	
B 84	B3-18 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS IN PARALLEL.	1	0	1	1	0	
B 85	B3-19 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS IN SERIES-PARALLEL CIRCUITS.	1	0	1	1	0	
B 86	B3-20 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LAGS VOLTAGE IN AC INDUCTOR CIRCUITS.	1	0	1	3	0	
B 87	B3-21 DO YOU CALCULATE INDUCTIVE REACTANCE.	1	0	1	3	0	
B 88	B3-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO FREQUENCY.	1	0	0	3	10	
B 89	B3-23 DO YOU WORK WITH POWER INDUCTORS.	3	0	3	6	0	
B 90	B3-24 DO YOU WORK WITH AUDIO FREQUENCY INDUCTORS.	3	0	2	6	10	
B 91	B3-25 DO YOU WORK WITH RADIO FREQUENCY INDUCTORS.	3	0	3	4	10	

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPL SPL SPL SPL
001 002 003 004 005

C 121 C1-30 DO YOU WORK WITH ROTOR-STATOR (VARIABLE) CAPACITORS
C 122 C1-31 DO YOU WORK WITH COMPRESSION (TRIMMER) CAPACITORS
C 123 C1-32 DO YOU WORK WITH ELECTROLYTIC (FIXED) CAPACITORS
C 124 C1-33 DO YOU WORK WITH PAPER (FIXED) CAPACITORS
C 125 C1-34 DO YOU WORK WITH MICA (FIXED) CAPACITORS
C 126 C1-35 DO YOU WORK WITH CERAMIC (FIXED) CAPACITORS
C 127 C1-36 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF CAPACITORS

C 128 C2-01 DO YOU WORK WITH TRANSFORMERS IN YOUR PRESENT JOB
C 129 C2-02 DO YOU INSPECT TRANSFORMERS
C 130 C2-03 DO YOU CLEAN TRANSFORMERS
C 131 C2-04 DO YOU ADJUST TRANSFORMERS
C 132 C2-05 DO YOU TROUBLESHOOT TRANSFORMERS
C 133 C2-06 DO YOU REMOVE OR REPLACE COMPLETE TRANSFORMERS
C 134 C2-07 DO YOU REMOVE OR REPLACE TRANSFORMER PARTS, SUCH AS THE PRIMARY WINDING

C 135 C2-08 DO YOU MAKE A DISTINCTION BETWEEN MUTUAL INDUCTION AND MUTUAL INDUCTANCE (M)
C 136 C2-09 DO YOU USE THE SYMBOL FOR MUTUAL INDUCTANCE, M
C 137 C2-10 DO YOU REFER TO OR USE THE COEFFICIENT OF COUPLING WHEN WORKING WITH TRANSFORMERS

C 138 C2-11 DO YOU CALCULATE TURNS RATIOS FOR TRANSFORMERS USING CURRENT OR VOLTAGE RATIOS
C 139 C2-12 DO YOU REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH TRANSFORMERS

C 140 C2-13 DO YOU CALCULATE IMPEDANCE INTERACTIONS FOR TRANSFORMERS

C 141 C2-14 DO YOU WORK WITH AUTOTRANSFORMERS
C 142 C2-15 DO YOU WORK WITH POWER TRANSFORMERS
C 143 C2-16 DO YOU WORK WITH AUDIO TRANSFORMERS
C 144 C2-17 DO YOU WORK WITH RADIO FREQUENCY TRANSFORMERS
C 145 C2-18 DO YOU WORK WITH DON'T REMEMBER WHAT TYPE OF TRANSFORMERS

C 146 C2-19 DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE

C 147 C2-20 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING RESISTANCE

C 148 C2-21 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING OUTPUT VOLTAGES

C 149 C2-22 DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR

C 150 C2-23 DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-

C 151 C2-24 DO YOU REFER TO BASIC TRANSFORMER SCHEMATIC SYMBOLS FOR TRANSFORMERS

TRANSFORMERS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

00-1500

SPL SPL SPL SPL SPL
001 002 003 004 005

C 152 C2-25 DO YOU REFER TO MULTIPLE SECONDARY-WINDINGS SCHEMATIC SYMBOLS FOR TRANSFORMERS	9	0	6	14	50
C 153 C2-26 DO YOU REFER TO MULTIPLE TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS	10	0	6	17	50
C 154 C2-27 DO YOU REFER TO CENTER TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS	12	0	7	21	50
C 155 C2-28 DO YOU REFER TO AIR CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS	7	0	5	8	40
C 156 C2-29 DO YOU REFER TO IRON CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS	8	0	5	11	50
C 157 C2-30 DO YOU REFER TO COMBINATIONS OF THE ABOVE SCHEMATIC SYMBOLS FOR TRANSFORMERS	7	0	4	13	50
C 158 C2-31 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING TRANSFORMERS YOU WORK WITH	2	0	2	3	20
C 159 C2-32 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN TRANSFORMERS	2	0	1	3	20
C 160 C2-33 DO YOU REFER TO OR USE THE GENERAL RULE THAT THE TURNS RATIO OF A TRANSFORMER IS EQUAL TO THE VOLTAGE RATIO FOR TRANSFORMERS	2	0	1	4	0
C 161 C2-34 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS USING TURNS RATIOS	5	0	2	10	20
C 162 C2-35 DO YOU CALCULATE VOLTAGE RATIOS FOR TRANSFORMERS	1	0	1	3	0
C 163 C2-36 DO YOU CALCULATE CURRENT RATIOS FOR TRANSFORMERS USING TURNS RATIOS	1	0	1	3	0
C 164 C2-37 DOES YOUR JOB INVOLVE ANY TASKS DEALING WITH THREE PHASE TRANSFORMERS	7	0	6	14	10
C 165 C2-38 DO YOU INSPECT THREE PHASE TRANSFORMERS	6	0	4	14	10
C 166 C2-39 DO YOU CLEAN OR LUBRICATE THREE PHASE TRANSFORMERS	1	0	1	3	0
C 167 C2-40 DO YOU ADJUST THREE PHASE TRANSFORMERS	4	0	3	7	0
C 168 C2-41 DO YOU TROUBLESHOOT THREE PHASE TRANSFORMERS	3	0	1	8	0
C 169 C2-42 DO YOU REMOVE OR REPLACE COMPLETE THREE PHASE TRANSFORMERS	3	0	2	7	0
C 170 C2-43 DO YOU REMOVE OR REPLACE THREE PHASE TRANSFORMER PARTS SUCH AS WINDINGS	0	0	0	1	0
C 171 C3-01 DO YOU USE OR REFER TO PERMANENT MAGNETS	8	0	7	14	10
C 172 C3-02 DO YOU USE OR REFER TO TEMPORARY MAGNETS	5	0	4	8	10
C 173 C3-03 DO YOU USE OR REFER TO RETENTIVITY OF MAGNETIC MATERIALS	1	0	1	1	10
C 174 C3-04 DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC MATERIALS	1	0	1	1	10
C 175 C3-05 DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC MATERIALS	1	0	1	1	10
C 176 C3-06 DO YOU USE OR REFER TO RESIDUAL MAGNETISM	1	6	1	1	10
C 177 C3-07 DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR FLUX	4	0	4	6	20
C 178 C3-08 DO YOU USE OR REFER TO MENDEL'S THEORY OF MAGNETISM	0	0	0	0	0

MAGNETISM

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMINGSPL SPL SPL SPL
001 002 003 004 005

Dy-TSA

C 179 C3-09 DO YOU USE OR REFER TO DOMAIN THEORY OF MAGNETISM
C 180 C3-10 DO YOU USE OR REFER TO MAGNETIC INDUCTION
C 181 C3-11 DO YOU USE OR REFER TO FLUX DENSITY
C 182 C3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT FOR
MAGNETIC POLES, LIKE POLES REPEL AND UNLIKE POLES ATTRACT
C 183 C3-13 DO YOU USE THE LEFT HAND THUMB RULE TO FIND THE
DIRECTION OF MAGNETIC FIELDS ABOUT STRAIGHT WIRES
C 184 C3-14 DO YOU USE THE LEFT HAND THUMB RULE TO FIND THE NORTH
POLE OF A CURRENT CARRYING COIL
D 185 D1-01 DO YOU WORK WITH RCL, LR, RCL CIRCUITS IN YOUR
PRESENT JOB
D 186 D1-02 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL
CIRCUITS
D 187 D1-03 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN
WORKING WITH RCL CIRCUITS
D 188 D1-04 DO YOU USE OR REFER TO SINE WHEN WORKING WITH RCL
CIRCUITS
D 189 D1-05 DO YOU USE OR REFER TO COSINE WHEN WORKING WITH RCL
CIRCUITS
D 190 D1-06 DO YOU USE OR REFER TO TANGENT WHEN WORKING WITH RCL
CIRCUITS
D 191 D1-07 DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL
CIRCUITS
D 192 D1-08 DO YOU USE OR REFER TO TRUE POWER (PT) WHEN WORKING
WITH RCL CIRCUITS
D 193 D1-09 DO YOU USE OR REFER TO MAXIMUM POWER (PM) WHEN
WORKING WITH RCL CIRCUITS
D 194 D1-10 DO YOU USE OR REFER TO AVERAGE POWER (PAVE) WHEN
WORKING WITH RCL CIRCUITS
D 195 D1-11 DO YOU USE OR REFER TO APPARENT POWER (PA) WHEN
WORKING WITH RCL CIRCUITS
D 196 D1-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING
WITH RCL CIRCUITS
D 197 D1-13 DO YOU USE OR REFER TO RESONANT CIRCUITS WHEN
WORKING WITH RCL CIRCUITS
D 198 D1-14 DO YOU USE OR REFER TO BANDWIDTH WHEN WORKING WITH
RCL CIRCUITS
D 199 D1-15 DO YOU USE OR REFER TO SELECTIVITY WHEN WORKING WITH
RCL CIRCUITS
D 200 D1-16 DO YOU USE OR REFER TO RESONANT FREQUENCY WHEN
WORKING WITH RCL CIRCUITS
D 201 D1-17 DO YOU USE OR REFER TO HALF POWER POINTS WHEN
WORKING WITH RCL CIRCUITS
D 202 D1-18 DO YOU USE OR REFER TO HANDPASS REGION WHEN WORKING
WITH RCL CIRCUITS
D 203 D1-19 DO YOU USE OR REFER TO CIRCUIT Q WHEN WORKING WITH
RCL CIRCUITS

RCL CIRCUITS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

01-TSK

	SPL	SPL	SPL	SPL	SPL
	001	002	003	004	005
0 204 01-20 DO YOU USE OR REFER TO TASK CIRCUITS WHEN WORKING WITH RCL CIRCUITS	2	0	2	4	10
0 205 01-21 DO YOU DETERMINE VALUES OF TRIGONOMETRIC FUNCTIONS USING FORMULAS	0	0	0	0	0
0 206 01-22 DO YOU DRAW VOLTAGE, CURRENT, OR IMPEDANCE VECTOR DIAGRAMS FOR CIRCUITS	0	0	1	0	0
0 207 01-23 DO YOU CALCULATE TOTAL IMPEDANCE FOR CAPACITIVE CIRCUITS	1	0	1	1	0
0 208 01-24 DO YOU CALCULATE PHASE ANGLES BETWEEN IMPEDANCE AND RESISTANCE IN CAPACITIVE CIRCUITS	0	0	0	0	0
0 209 01-25 DO YOU CALCULATE TOTAL IMPEDANCE FOR SERIES RCL CIRCUITS	1	0	1	1	0
0 210 01-26 DO YOU CALCULATE IMPEDANCE ANGLES FOR SERIES RCL CIRCUITS	0	0	1	0	0
0 211 01-27 DO YOU CALCULATE APPARENT POWER (PA) FOR SERIES RCL CIRCUITS	1	0	1	0	10
0 212 01-28 DO YOU CALCULATE TRUE POWER (PT) FOR SERIES RCL CIRCUITS	1	0	1	0	10
0 213 01-29 DO YOU CALCULATE POWER FACTORS (PF) FOR SERIES RCL CIRCUITS	0	0	1	0	0
0 214 01-30 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RCL CIRCUITS	1	0	1	1	10
0 215 01-31 DO YOU CALCULATE IMPEDANCE ANGLES FOR PARALLEL RCL CIRCUITS	0	0	0	0	0
0 216 01-32 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING THE ASSUMED VOLTAGE METHOD	0	0	0	0	0
0 217 01-33 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING OHM'S LAW	1	0	1	1	10
0 218 01-34 DO YOU CHECK CAPACITORS USING OHMMETERS	2	0	2	3	0
0 219 01-35 DO YOU CHECK CAPACITORS USING SUBSTITUTION	2	0	2	4	10
0 220 01-36 DO YOU CHECK INDUCTORS USING OHMMETERS	1	0	2	1	0
0 221 01-37 DO YOU CHECK INDUCTORS USING SUBSTITUTION	1	0	1	4	0
0 222 01-38 DO YOU USE OR REFER TO THE GENERAL RULE THAT $\theta = \theta$, $PF = 1$, AND $PA = PT$ FOR RESONANT CIRCUITS	0	0	0	0	0
0 223 01-39 DO YOU CALCULATE RESONANT FREQUENCIES FOR RCL CIRCUITS	0	0	1	0	0
0 224 01-40 DO YOU USE OR REFER TO THE GENERAL RULE THAT IMPEDANCE IS MINIMUM AND CURRENT MAXIMUM AT THE RESONANT	1	0	1	3	0
0 225 01-41 DO YOU USE OR REFER TO THE GENERAL RULE THAT LINE CURRENT IS MINIMUM AND IMPEDANCE MAXIMUM AT RESONANT	1	0	1	1	0
0 226 01-42 DO YOU USE OR REFER TO THE GENERAL RULE THAT HALF POWER POINTS ARE AT 70.7 PERCENT OF THE PEAK CURRENT VALUE	1	0	1	1	10
0 227 01-43 DO YOU USE OR REFER TO THE GENERAL RULE THAT BANDWIDTH IS INVERSELY PROPORTIONAL TO Q	1	0	1	1	0
0 228 01-44 DO YOU DETERMINE HOW CHANGES IN FREQUENCY, RESISTANCE, CAPACITANCE, OR INDUCTANCE WILL AFFECT CURRENT OR PHASE	0	0	0	0	0

PCT MORS PERK TASKS BY DAFAC GRPS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

Dx-TSK

	SPL D01	SPL D02	SPL D03	SPL D04	SPL D05	
D 229 02-01 IN YOUR PRESENT JOB, DO YOU WORK WITH, USE, OR REFER TO SERIES OR PARALLEL RESONANT CIRCUITS OR TIME CONSTANTS	3	0	2	4	30	SERIES AND PARALLEL RESONANCE (TIME CONSTANTS)
D 230 02-02 DO YOU WORK WITH, USE, OR REFER TO TIME CONSTANTS	3	0	1	4	30	
D 231 02-03 DO YOU WORK WITH, USE, OR REFER TO AVAILABLE VOLTAGE	1	0	1	1	10	
D 232 03-04 DO YOU WORK WITH, USE, OR REFER TO TRANSIENT INTERVALS	1	0	1	0	10	
D 233 02-05 DO YOU USE OR REFER TO THE GENERAL RULE THAT A CAPACITOR IS FULLY CHARGED (OR DISCHARGED) AFTER FIVE (5) TIME CONSTANTS	2	0	0	1	30	SERIES AND PARALLEL RESONANCE (TIME CONSTANTS)
D 234 02-06 DO YOU USE OR REFER TO UNIVERSAL TIME CONSTANT CHARTS	1	0	0	1	10	
D 235 02-07 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CIRCUIT CURRENT OR COMPONENT VOLTAGES AFTER A SPECIFIC TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO REACH A SPECIFIC VALUE	0	0	0	0	10	
D 236 02-08 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO REACH A SPECIFIC VALUE	0	0	0	0	10	
D 237 02-09 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND VOLTAGE	0	0	0	0	10	SERIES AND PARALLEL RESONANCE (TIME CONSTANTS)
D 238 02-10 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT IN LR CIRCUITS REACHES ITS MINIMUM VALUE 10R ZERO AFTER ONE TIME CONSTANT	1	0	0	0	30	
D 239 03-01 DO YOU WORK WITH CIRCUITS USED AS FILTERS IN YOUR PRESENT JOB	5	0	3	7	20	
D 240 03-02 DO YOU INSPECT FILTER CIRCUITS	4	0	3	6	10	
D 241 03-03 DO YOU CLEAN FILTER CIRCUITS	2	0	2	3	10	FILTERS
D 242 03-04 DO YOU ALIGN OR ADJUST FILTER CIRCUITS	2	0	2	3	10	
D 243 03-05 DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT LEVEL	2	0	2	1	20	
D 244 03-06 DO YOU TROUBLESHOOT TO COMPONENT PARTS	2	0	2	3	20	
D 245 03-07 DO YOU REMOVE OR REPLACE THE COMPLETE FILTER CIRCUIT	4	0	2	7	20	FILTERS
D 246 03-08 DO YOU REMOVE OR REPLACE FILTER CIRCUIT COMPONENT PARTS	2	0	2	3	20	
D 247 03-09 DO YOU WORK WITH LOW PASS FILTERS	1	0	1	1	10	
D 248 03-10 DO YOU WORK WITH HIGH PASS FILTERS	1	0	1	1	10	
D 249 03-11 DO YOU WORK WITH BANDPASS FILTERS	1	0	1	3	10	FILTERS
D 250 03-12 DO YOU WORK WITH BAND-REJECT FILTERS	1	0	1	1	10	
D 251 03-13 DON'T REMEMBER WHICH TYPE OF FILTER YOU WORK WITH	3	0	2	4	20	
D 252 03-14 DO YOU WORK WITH L-SECTION FILTER CONFIGURATION	1	0	1	3	0	
D 253 03-15 DO YOU WORK WITH T-SECTION FILTER CONFIGURATION	1	0	1	3	0	FILTERS
D 254 03-16 DO YOU WORK WITH PI-SECTION FILTER CONFIGURATION	1	0	1	3	0	
D 255 03-17 DON'T REMEMBER WHICH TYPE FILTER CONFIGURATION	3	0	2	3	30	
D 256 03-18 DO THE FILTERS YOU WORK WITH USE PARALLEL RESONANT CIRCUITS	2	0	1	4	10	
D 257 03-19 DO THE FILTERS YOU WORK WITH USE SERIES-PARALLEL CIRCUITS	2	0	1	4	10	FILTERS
D 258 03-20 DO THE FILTERS YOU WORK WITH USE SERIES MESONANT CIRCUITS	2	0	1	3	10	

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

0Y-TSR

		SPL 001	SPL 002	SPL 003	SPL 004	SPL 005	
E 459	03-21 DO YOU REMEMBER WHICH TYPE OF BASIC CIRCUIT	2	0	1	3	20	
E 460	03-22 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE	0	0	0	0	0	
E 461	01-01 DO YOU WORK WITH CAPACITIVE VALUES REQUIRED FOR SPECIFIC	4	0	2	6	20	
E 462	01-02 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO	4	0	2	6	20	
E 463	01-03 DO YOU IDENTIFY THE COMPONENTS ASSOCIATED WITH RC	2	0	2	3	20	
E 464	01-04 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO	3	0	1	7	20	
E 465	01-05 DO YOU IDENTIFY THE COMPONENTS ASSOCIATED WITH	2	0	2	3	10	
E 466	01-06 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS	2	0	2	3	10	
E 467	01-07 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS	2	0	1	4	0	
E 468	01-08 DO YOU WORK WITH DIRECTLY COUPLED CIRCUITS	2	0	1	3	20	
E 469	01-09 DO YOU WORK WITH CAPACITIVE-RESISTIVE COUPLED	2	0	1	3	20	
E 470	01-10 DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED	2	0	1	3	20	
E 471	01-11 DO YOU WORK WITH TRANSFORMER COUPLED CIRCUITS	2	0	1	4	20	
E 472	01-12 DO YOU REMEMBER WHICH TYPE OF COUPLING CIRCUITS	1	0	2	1	0	
E 473	02-01 IN YOUR PRESENT JOB, DO YOU PERFORM SOLDERING	35	6	35	44	40	
E 474	02-02 DO YOU SELECT TYPE OF SOLDER TO USE	27	6	27	30	30	
E 475	02-03 DO YOU ADD FLUX TO CONNECTIONS	26	6	26	30	20	
E 476	02-04 DO YOU CLEAN CONNECTIONS USING SOLVENTS	26	6	28	24	20	
E 477	02-05 DO YOU STRIP INSULATION FROM WIRES	32	6	34	35	30	
E 478	02-06 DO YOU CONNECT OR DISCONNECT HEAT SINKS	21	6	19	30	30	
E 479	02-07 DO YOU BEND OR SHAPE WIRES OR LEADS	30	6	31	34	30	
E 480	02-08 DO YOU CUT WIRES	31	6	32	34	30	
E 481	02-09 DO YOU FILE OR SHAPE SOLDERING IRON TIPS	25	6	25	32	10	
E 482	02-10 DO YOU TIN SOLDERING IRON TIPS	27	6	26	35	30	
E 483	02-11 DO YOU CLEAN SOLDERING IRON TIPS	30	6	31	35	30	
E 484	02-12 DO YOU CLEAN ELECTRICAL SURFACES USING ERASERS	22	6	21	30	20	
E 485	02-13 DO YOU TIN OR PRE-TIN CONNECTIONS	22	6	18	35	30	
E 486	02-14 DO YOU INSPECT SOLDERED CONNECTIONS	31	6	28	42	40	
E 487	02-15 DO YOU DESOLDER CONNECTIONS BY WICKING	16	6	15	23	0	
E 488	02-16 DO YOU DESOLDER CONNECTIONS USING VACUUM DESOLDERING	5	6	4	8	10	
E 489	02-17 DO YOU CUT COMPONENT LEADS TO REMOVE COMPONENTS	19	6	16	24	30	
E 490	02-18 DO YOU CRUSH COMPONENTS FOR REMOVAL	4	6	4	1	0	

SOLDERING

COUPLING

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMINGSPL SPL SPL SPL SPL
U01 U02 U03 U04 U05

BY-TASK

E 291 E2-19 DO YOU MAKE HARDWIRE CONNECTIONS
E 292 E2-20 DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS
E 293 E2-21 DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS ON PRINTED CIRCUIT BOARDS
E 294 E2-22 DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS ON PRINTED CIRCUIT BOARDS
E 295 E3-01 DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB
E 296 E3-02 DO YOU ADJUST RELAYS
E 297 E3-03 DO YOU CLEAN RELAYS
E 298 E3-04 DO YOU INSPECT RELAYS
E 299 E3-05 DO YOU REMOVE OR REPLACE COMPLETE RELAYS
E 300 E3-06 DO YOU REMOVE OR REPLACE PARTS OR RELAYS
E 301 E3-07 DO YOU TROUBLESHOOT RELAYS
E 302 E3-08 DO YOU STRAIGHTEN RELAY CONTACTS
E 303 E3-09 DO YOU PERFORM TASKS ON RELAY CONTACTS
E 304 E3-10 DO YOU PERFORM TASKS ON RELAY COILS
E 305 E3-11 DO YOU PERFORM TASKS ON RELAY ARMATURES
E 306 E3-12 DO YOU PERFORM TASKS ON RELAY SPRINGS
E 307 E3-13 DO YOU PERFORM TASKS ON RELAY COILS
E 308 E3-14 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY OPEN (NO) SCHEMATIC SYMBOLS FOR RELAYS
E 309 E3-15 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY CLOSED (NC) SCHEMATIC SYMBOLS FOR RELAYS
E 310 E3-16 DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW (SPDT) SCHEMATIC SYMBOLS FOR RELAYS
E 311 E3-17 DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW (DPDT) SCHEMATIC SYMBOLS FOR RELAYS
E 312 E3-18 DO YOU USE OR REFER TO OTHER RELAY SYMBOLS SCHEMATIC SYMBOLS FOR RELAYS
E 313 E3-19 DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY MEASURING RESISTANCE
F 314 F1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH MICROPHONES
F 315 F1-02 DO YOU INSPECT MICROPHONES
F 316 F1-03 DO YOU CLEAN MICROPHONES
F 317 F1-04 DO YOU OPERATE MICROPHONES
F 318 F1-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT
F 319 F1-06 DO YOU TROUBLESHOOT DOWN TO MICROPHONE PARTS
F 320 F1-07 DO YOU REMOVE OR REPLACE COMPLETE MICROPHONES
F 321 F1-08 DO YOU REMOVE OR REPLACE MICROPHONE PARTS
F 322 F1-09 DO YOU PERFORM TASKS ON CARBON MICROPHONES
F 323 F1-10 DO YOU PERFORM TASKS ON CAPACITOR MICROPHONES
F 324 F1-11 DO YOU PERFORM TASKS ON CRYSTAL MICROPHONES
F 325 F1-12 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES
F 326 F1-13 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES

RELAYS

MICROPHONES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

		SPL	SPL	SPL	SPL	SPL
		001	002	003	004	005
F 327 F2-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH SPEAKERS		1	0	0	3	10
F 328 F2-02 DO YOU INSPECT SPEAKERS		1	0	0	1	10
F 329 F2-03 DO YOU CLEAN SPEAKERS		0	0	0	0	0
F 330 F2-04 DO YOU OPERATE SPEAKERS		1	0	0	1	10
F 331 F2-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT		0	0	0	1	0
F 332 F2-06 DO YOU TROUBLESHOOT DOWN TO SPEAKER PARTS		0	0	0	0	0
F 333 F2-07 DO YOU REMOVE OR REPLACE COMPLETE SPEAKERS		1	0	0	1	10
F 334 F2-08 DO YOU REMOVE OR REPLACE SPEAKER PARTS		0	0	0	0	0
F 335 F2-09 DO YOU PERFORM ANY TASKS ON SPEAKER CONES		0	0	0	0	0
F 336 F2-10 DO YOU PERFORM ANY TASKS ON SPEAKER SPIDERS		0	0	0	0	0
F 337 F2-11 DO YOU PERFORM ANY TASKS ON SPEAKER FIELD COILS		0	0	0	0	0
F 338 F2-12 DO YOU PERFORM ANY TASKS ON SPEAKER VOICE COILS		0	0	0	0	0
F 339 F2-13 DO YOU PERFORM ANY TASKS ON SPEAKER PERMANENT MAGNETS		0	0	0	0	0
F 340 F2-14 DO YOU PERFORM ANY TASKS ON SPEAKER ELECTROMAGNETS		0	0	0	0	0
F 341 F2-15 DO YOU PERFORM ANY TASKS ON SPEAKER SOFT IRON CONES		0	0	0	0	0
F 342 F3-01 DO YOU USE OSCILLOSCOPES IN YOUR PRESENT JOB		51	31	55	51	30
F 343 F3-02 DO YOU USE OSCILLOSCOPES TO PERFORM OPERATIONAL CHECKS		37	13	38	42	30
F 344 F3-03 DO YOU USE OSCILLOSCOPES TO PERFORM ALIGNMENTS OR ADJUSTMENTS		41	19	43	45	30
F 345 F3-04 DO YOU USE OSCILLOSCOPES TO TROUBLESHOOT ELECTRONIC CIRCUITS		33	6	35	35	30
F 346 F3-05 DO YOU USE OSCILLOSCOPES TO MEASURE FREQUENCY		42	25	45	41	30
F 347 F3-06 DO YOU USE OSCILLOSCOPES TO MEASURE TIME		41	31	41	48	20
F 348 F3-07 DO YOU USE OSCILLOSCOPES TO OBSERVE LISAIOUS PATTERNS		4	6	4	4	0
F 349 F3-08 DO YOU USE OSCILLOSCOPES TO OBSERVE SIGNALS WHILE UTILIZING ATTENUATOR PROBES		29	19	31	30	20
F 350 F3-09 DO YOU USE OSCILLOSCOPES TO MAKE FREQUENCY OR TIME MEASUREMENTS USING DELAY TIME MULTIPLIERS		20	19	20	21	20
F 351 F3-10 DO YOU USE OSCILLOSCOPES TO MEASURE AC VOLTAGE		40	25	44	38	20
F 352 F3-11 DO YOU USE OSCILLOSCOPES TO MEASURE OR OBSERVE SIGNALS AFTER FIRST ADJUSTING THE GAIN AND DC BAL CONTROLS		21	13	20	27	20
F 353 F3-12 DO YOU USE OSCILLOSCOPES TO MEASURE DC VOLTAGE		35	19	37	38	20
F 354 G1-01 DO YOU WORK WITH SEMICONDUCTOR DIODES IN YOUR PRESENT JOB		10	0	7	17	20
G 355 G1-02 DO YOU INSPECT DIODES		9	0	6	17	30
G 356 G1-03 DO YOU REMOVE OR REPLACE DIODES		6	0	4	11	30
G 357 G1-04 DO YOU CHECK DIODES USING AN INSTRUMENT		6	0	4	8	20
G 358 G1-05 DO YOU USE ENERGY LEVEL DIAGRAMS IN YOUR WORK WITH DIODES		0	0	0	0	0
G 359 G1-06 DO YOU USE PN JUNCTION DIODE CHARACTERISTIC CURVES, TOGETHER WITH VALUES OF FORWARD AND REVERSE BIAS VOLTAGE, TO DETERMINE THE FORWARD OR REVERSE BIAS RESISTANCE FOR DIODES		0	0	1	0	0

SEMICONDUCTOR DIODES

OSCILLOSCOPES

SPEAKERS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMINGSPL SPL SPL SPL
001 002 003 004 005

Dr-TSK

G 361 GI-08 DO YOU USE OR REFER TO THE GENERAL RULE THAT TEMPERATURE CAN AFFECT THE OPERATION OF DIODES

G 362 GI-09 DO YOU IDENTIFY SEMICONDUCTOR DIODES AS OPPOSED TO OTHER ELECTRONIC COMPONENTS, SUCH AS RESISTORS, BASED ON

G 363 GI-10 DO YOU REFER TO OR DO YOU DETERMINE THE GENERAL EFFECTS OF DOPING ON CURRENT FLOW

G 364 GI-11 DO YOU USE OR REFER TO MEASUREMENTS OF FORWARD BIAS RESISTANCE

G 365 GI-12 DO YOU USE OR REFER TO DIODE COLOR CODING

G 366 GI-13 DO YOU USE OR REFER TO CENTRIFUGAL FORCE OF AN ELECTRON IN ORBIT AROUND A NUCLEUS

G 367 GI-14 DO YOU USE OR REFER TO CENTRIPETAL FORCE OF AN ELECTRON IN ORBIT AROUND A NUCLEUS

G 368 GI-15 DO YOU USE OR REFER TO DIODE NUMBERING SYSTEM, SUCH AS IN 53H

G 369 GI-16 DO YOU USE OR REFER TO KINETIC ENERGY OF AN ELECTRON MOVING IN ORBIT

G 370 GI-17 DO YOU USE OR REFER TO POTENTIAL ENERGY OF AN ELECTRON MOVING IN ORBIT

G 371 GI-18 DO YOU USE OR REFER TO MEASUREMENTS OF REVERSE BIAS RESISTANCE

G 372 GI-19 DO YOU USE OR REFER TO NUMBER OF ELECTRONS IN A PARTICULAR SHELL OR ORBIT

G 373 GI-20 DO YOU USE OR REFER TO PERMISSIBLE ENERGY LEVELS OF AN ORBITING ELECTRON

G 374 GI-21 DO YOU USE OR REFER TO FORBIDDEN ENERGY LEVELS OF AN ORBITING ELECTRON

G 375 GI-22 DO YOU USE OR REFER TO VALENCE ELECTRONS (THOSE IN THE OUTERMOST SHELL)

G 376 GI-23 DO YOU USE OR REFER TO ATOMIC NUMBER (TOTAL NUMBER OF ELECTRONS IN ATOM)

G 377 GI-24 DO YOU USE OR REFER TO SYMBOLS ON THE DIODE WHICH INDICATE THE CATHODE END

G 378 GI-25 DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON

G 379 GI-26 DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE TEMPERATURE COEFFICIENTS OF RESISTANCE (AS TEMPERATURE INCREASES)

G 380 GI-27 DO YOU USE OR REFER TO PN JUNCTION DIODE CHARACTERISTIC CURVES, SUCH AS VOLTAGE - CURRENT

G 381 GI-28 DO YOU DETERMINE WHETHER PN JUNCTION DIODES ARE FORWARD BIASED OR REVERSE BIASED WHEN YOU READ OR FORWARD BIAS

G 382 GI-29 DO YOU USE OR REFER TO VALENCE BAND IN SEMICONDUCTOR MATERIALS

TASK GROUP SUMMARY
PERCENT REMAINERS PERFORMANCE

		BY-TSK					SPL				
							001	002	003	004	005
G 383	GI-3D DO YOU USE OR REFER TO FORBIDDEN BAND IN SEMICONDUCTOR MATERIALS	0	0	0	0	0	0	0	0	0	0
G 384	GI-3I DO YOU USE OR REFER TO CONDUCTION BAND IN SEMICONDUCTOR MATERIALS	0	0	0	0	0	0	0	0	0	0
G 385	GI-3J DO YOU USE OR REFER TO COVALENT BONDING IN SEMICONDUCTOR MATERIALS	0	0	0	0	0	0	0	0	0	0
G 386	GI-3K DO YOU USE OR REFER TO ELECTRON-HOLE PAIR CREATED IN SEMICONDUCTORS	0	0	0	0	1	0	0	0	0	0
G 387	GI-3L DO YOU USE OR REFER TO ELECTRON FLOW OR HOLE FLOW IN SEMICONDUCTORS	1	0	0	0	3	10				
G 388	GI-3M DO YOU USE OR REFER TO DONOR IMPURITY IN SEMICONDUCTORS	0	0	0	0	0	0				
G 389	GI-3N DO YOU USE OR REFER TO ACCEPTOR IMPURITY IN SEMICONDUCTORS	0	0	0	0	0	0				
G 390	GI-3O DO YOU USE OR REFER TO P-TYPE SEMICONDUCTOR MATERIAL	0	0	0	0	0	10				
G 391	GI-3P DO YOU USE OR REFER TO N-TYPE SEMICONDUCTOR MATERIAL	0	0	0	0	0	10				
G 392	GI-3Q DO YOU USE OR REFER TO MAJORITY CARRIERS IN SEMICONDUCTORS	0	0	0	0	0	0				
G 393	GI-4O DO YOU USE OR REFER TO MINORITY CARRIERS IN SEMICONDUCTORS	0	0	0	0	0	0				
G 394	GI-4I DO YOU USE OR REFER TO JUNCTION RECOMBINATION IN SEMICONDUCTORS	0	0	0	0	0	0				
G 395	GI-4J DO YOU USE OR REFER TO DEPLETION REGION IN SEMICONDUCTORS	0	0	0	0	0	0				
G 396	GI-4K DO YOU USE OR REFER TO RELATIONSHIP BETWEEN BARRIER WIDTH AND DIFFERENCE OF POTENTIAL	0	0	0	0	0	0				
G 397	GI-4L DO YOU USE OR REFER TO THE 10:1 BACK TO FRONT RESISTANCE RATIO FOR DIODES	4	0	2	4	40					
G 398	GI-4M DO YOU USE OR REFER TO BARRIER HEIGHT IN SEMICONDUCTORS	0	0	0	0	10					
G 399	GI-4N DO YOU USE OR REFER TO DIODE SUBSTITUTION INFORMATION	1	0	1	3	10					
G 400	GI-4O DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD CURRENT DIODE RATINGS	1	0	1	0	10					
G 401	GI-4P DO YOU USE OR REFER TO PEAK RECURRENT FORWARD CURRENT DIODE RATINGS	0	0	1	0	0					
G 402	GI-4Q DO YOU USE OR REFER TO MAXIMUM SURGE CURRENT DIODE RATINGS	1	0	1	0	10					
G 403	GI-5O DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE DIODE RATINGS	1	0	1	0	10					
TRANSISTORS											
G 404	G2-0I DO YOU WORK WITH TRANSISTORS IN YOUR PRESENT JOB.	19	0	10	24	20					
G 405	G2-0J DO YOU INSPECT TRANSISTORS	10	0	7	18	20					
G 406	G2-0K DO YOU REMOVE OR REPLACE TRANSISTORS	7	0	4	15	20					
G 407	G2-0L DO YOU CHECK TRANSISTORS USING AN INSTRUMENT	5	0	3	10	10					
G 408	G2-0M DO YOU USE OR REFER TO EMITTER - BASE (EB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS	4	0	2	8	20					
G 409	G2-0N DO YOU USE OR REFER TO COLLECTOR - BASE (CB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS	4	0	2	7	20					

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

SPL SPL SPL SPL
001 002 003 004 005

BY-TSK

G 410 G2-07 DO YOU USE OR REFER TO E-ITTER - COLLECTOR (EC)
RESISTANCE MEASUREMENTS
G 411 G2-08 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE
PHYSICAL BARRIER WIDTH OF THE EMITTER - BASE JUNCTION
G 412 G2-09 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE
PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION
G 413 G2-10 DO YOU USE OR REFER TO THE PHYSICAL SIZE OF THE
TRANSISTOR STRUCTURE (COLLECTOR, BASE AND EMITTER)
G 414 G2-11 DO YOU USE OR REFER TO LEAKAGE CURRENT (ICBO) IN A
TRANSISTOR
G 415 G2-12 DO YOU USE OR REFER TO TRANSISTOR SCHEMATIC SYMBOLS
G 416 G2-13 DO YOU USE OR REFER TO TRANSISTOR NOTATION SUCH AS
Q1, Q2, Q3, ETC
G 417 G2-14 DO YOU USE OR REFER TO TRANSISTOR SUBSTITUTION
INFORMATION
G 418 G2-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE
TRANSISTOR BASE CURRENT IS NORMALLY SIGNIFICANTLY
G 419 G2-16 DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER
BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR
G 420 G2-17 DO YOU USE THE GENERAL RULE THAT LEAKAGE CURRENT
(ICBO) IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES
G 421 G2-18 DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC
CURVES
G 422 G2-19 DO YOU USE OR REFER TO BETA TRANSISTOR GAINS
G 423 G2-20 DO YOU USE OR REFER TO ALPHA TRANSISTOR GAINS
G 424 G2-21 DO YOU USE OR REFER TO GAMMA TRANSISTOR GAINS
G 425 G2-22 DO YOU CALCULATE BETA TRANSISTOR GAINS
G 426 G2-23 DO YOU CALCULATE ALPHA TRANSISTOR GAINS
G 427 G2-24 DO YOU CALCULATE GAMMA TRANSISTOR GAINS
G 428 G3-01 DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR
PRESENT JOB
G 429 G3-02 DO YOU INSPECT TRANSISTOR AMPLIFIERS
G 430 G3-03 DO YOU ALIGN OR ADJUST TRANSISTOR AMPLIFIERS
G 431 G3-04 DO YOU TROUBLESHOOT TO THE AMPLIFIER CIRCUIT LEVEL
G 432 G3-05 DO YOU TROUBLESHOOT TO AMPLIFIER COMPONENTS
G 433 G3-06 DO YOU REMOVE OR REPLACE THE COMPLETE AMPLIFIER
G 434 G3-07 DO YOU REMOVE OR REPLACE AMPLIFIER COMPONENTS
G 435 G3-08 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN
COLLECTOR CURRENT WHICH RESULTS FROM A CHANGE IN BASE
G 436 G3-09 DO YOU USE OR REFER TO (COMMON EMITTER) THE
CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN

TRANSISTOR AMPLIFIERS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

0Y-15X

SPL SPL SPL SPL SPL
001 002 003 004 005

G 437 G3-10 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN COLLECTOR VOLTAGE WHICH RESULTS FROM A CHANGE IN BASE	1	0	0	3	10
G 438 G3-11 DO YOU USE OR REFER TO (COMMON EMITTER) THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN	0	0	0	0	10
G 439 G3-12 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN BASE CURRENT WHICH RESULTS FROM AN INPUT SIGNAL	1	0	0	0	20
G 440 G3-13 DO YOU USE OR REFER TO (COMMON EMITTER) THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN	0	0	0	0	10
G 441 G3-14 DO YOU USE THE LOAD-LINE METHOD OF ANALYSIS IN YOUR CIRCUIT ANALYSIS (THIS METHOD REQUIRES YOU TO PLOT A	0	0	0	0	0
G 442 G3-15 DO YOU USE OR REFER TO THE OPERATING POINT Q (QUIESCENT POINT) FOR A TRANSISTOR	1	0	0	1	10
G 443 G3-16 DO YOU CALCULATE THE SPECIFIC QUIESCENT POINT FOR A PARTICULAR TRANSISTOR	0	0	0	0	10
G 444 G3-17 DO YOU MEASURE VOLTAGE GAIN USED IN THE COMMON EMITTER CONFIGURATION	1	0	0	4	10
G 445 G3-18 DO YOU MEASURE CURRENT GAIN USED IN THE COMMON EMITTER CONFIGURATION	1	0	0	4	10
G 446 G3-19 DO YOU MEASURE POWER GAIN USED IN THE COMMON EMITTER CONFIGURATION	1	0	0	4	10
G 447 G3-20 DO YOU CALCULATE THE VOLTAGE GAIN FOR SPECIFIC TRANSISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE CHANGE	0	0	0	0	0
G 448 G3-21 DO YOU CALCULATE THE CURRENT GAIN FOR SPECIFIC TRANSISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE	0	0	0	0	0
G 449 G3-22 DO YOU CALCULATE THE POWER GAIN FOR A SPECIFIC TRANSISTOR USING A FORMULA THAT IS, DO YOU MULTIPLY THE	0	0	0	0	0
G 450 G3-23 DO YOU NEED TO KNOW THAT MORE COLLECTOR CURRENT IS GENERATED WITH LESS COLLECTOR VOLTAGE AS TEMPERATURE	0	0	0	1	0
G 451 G3-24 DO YOU COMPUTE THE STATIC OPERATING POINT EQ3 OF A TRANSISTOR AT DIFFERENT TEMPERATURES	0	0	0	0	0
G 452 G3-25 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH	0	0	0	0	0
G 453 G3-26 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH SELF-	0	0	1	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		SPL 001	SPL 002	SPL 003	SPL 004	SPL 005
DY-TSK						
G 454	G3-27 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH	0	0	0	0	0
G 455	G3-28 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH	0	0	1	0	0
G 456	G3-29 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH	0	0	1	0	0
G 457	G3-30 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH	0	0	1	0	0
G 458	G3-31 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM EMITTER (SWAMPING) RESISTOR STABILIZATION	0	0	0	0	0
G 459	G3-32 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM SELF-BIAS STABILIZATION	1	0	1	0	10
G 460	G3-33 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM THERMISTOR STABILIZATION	1	0	0	1	10
G 461	G3-34 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM FORWARD BIAS DIODE STABILIZATION	1	0	1	1	10
G 462	G3-35 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM REVERSE BIAS DIODE STABILIZATION	1	0	1	1	10
G 463	G3-36 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM DOUBLE DIODE STABILIZATION	0	0	1	0	0
G 464	G3-37 DO YOU IDENTIFY AMPLITUDE DISTORTION FOR TRANSISTOR CIRCUITS	1	0	1	1	10
G 465	G3-38 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF AMPLITUDE DISTORTION	1	0	0	1	10
G 466	G3-39 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR CIRCUITS	1	0	0	1	10
G 467	G3-40 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR CIRCUITS	0	0	0	0	0
G 468	G3-41 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF PHASE DISTORTION	0	0	0	0	0
G 469	G3-42 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF FREQUENCY DISTORTION	1	0	0	1	10
G 470	G3-43 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING EMITTER RESISTANCE FOR	0	0	0	0	0
G 471	G3-44 DO YOU DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS	1	0	1	1	10
G 472	G3-45 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS	1	0	1	1	0
G 473	G3-46 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS	3	0	2	6	10
G 474	G3-47 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS	0	0	1	0	0
G 475	G3-48 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS	1	0	1	1	0

TASK GROUP SUMMARY
DIFFICULT MEMBERS PERFORMANCE

0Y-TSK

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001 002 003 004 005

476	03-49	DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS	1	0	1	3	0
477	01-01	DO YOU USE OR REFER TO VARIATIONS	2	0	1	1	10
478	01-02	DO YOU USE OR REFER TO TUNNEL DIODES	4	0	2	7	10
479	01-03	DO YOU USE OR REFER TO FIELD EFFECT TRANSISTORS (FET)	9	0	7	18	0
480	01-04	DO YOU USE OR REFER TO JUNCTION TRANSISTORS	7	0	7	13	0
481	01-05	DO YOU USE OR REFER TO ZENER DIODES	19	0	17	25	40
482	01-06	DO YOU USE OR REFER TO INTEGRATED CIRCUITS	26	0	26	30	50
483	02-01	DO YOU PRESENT JOB DO YOU WORK WITH POWER SUPPLIES	41	38	40	44	30
484	02-02	DO YOU INSPECT POWER SUPPLIES	30	38	26	35	30
485	02-03	DO YOU CLEAN POWER SUPPLIES	19	13	18	21	10
486	02-04	DO YOU ALIGN OR ADJUST POWER SUPPLIES	29	13	20	37	30
487	02-05	DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL	17	0	13	30	30
488	02-06	DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS	11	0	8	18	30
489	02-07	DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES	20	0	18	31	20
490	02-08	DO YOU REMOVE OR REPLACE POWER SUPPLY COMPONENTS	10	0	7	20	20
491	02-09	DO YOU WORK WITH HALF-WAVE RECTIFIERS	9	0	7	15	20
492	02-10	DO YOU WORK WITH FULL-WAVE RECTIFIERS OTHER THAN BRIDGE RECTIFIERS	7	0	5	15	10
493	02-11	DO YOU WORK WITH BRIDGE RECTIFIERS	9	0	6	17	20
494	02-12	DO YOU WORK WITH THREE-PHASE RECTIFIERS	3	0	2	7	0
495	02-13	DO YOU USE OR REFER TO INPUT VOLTAGE	18	13	16	24	20
496	02-14	DO YOU USE OR REFER TO INPUT FREQUENCY	13	13	12	14	10
497	02-15	DO YOU USE OR REFER TO PEAK OUTPUT VOLTAGE	14	13	12	21	10
498	02-16	DO YOU USE OR REFER TO AVERAGE OUTPUT VOLTAGE	12	13	9	17	20
499	02-17	DO YOU USE OR REFER TO RIPPLE AMPLITUDE	4	0	3	6	20
500	02-18	DO YOU USE OR REFER TO RIPPLE FREQUENCY	3	0	2	4	10
501	02-19	DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE	3	0	2	6	10
502	02-20	DO YOU USE OR REFER TO SHAPE OF OUTPUT WAVEFORMS	11	6	8	17	20
503	02-21	DO YOU USE OR REFER TO EFFECTIVE OUTPUT VOLTAGE	12	13	10	15	30
504	02-22	DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE FILTERS	7	0	3	17	20
505	02-23	DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE FILTERS	6	0	3	13	10
506	02-24	DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE INPUT L-TYPE FILTERS	4	0	2	7	10
507	02-25	DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE INPUT L-TYPE FILTERS	2	0	2	4	10
508	02-26	DO YOU WORK WITH CIRCUITS WHICH EMPLOY LC PI-TYPE FILTERS	2	0	2	4	0
509	02-27	DO YOU WORK WITH CIRCUITS WHICH EMPLOY RC PI-TYPE FILTERS	2	0	2	4	10
510	02-28	DO YOU WORK WITH CIRCUITS WHICH EMPLOY DON'T REMEMBER WHICH TYPE OF FILTER	12	0	11	20	0
511	02-29	DO YOU HAVE THE OPTION OF REPLACING ONE TYPE OF FILTER WITH A DIFFERENT TYPE FILTER	0	0	0	1	0
512	03-01	DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB	4	0	3	8	0

SOLID STATE SPECIAL PURPOSE DEVICES

POWER SUPPLIES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

UNIT-5A						
	SPL 001	SPL 002	SPL 003	SPL 004	SPL 005	
M 513 H3-02 DO YOU INSPECT OSCILLATORS						OSCILLATORS
M 514 H3-03 DO YOU ALIGN OR ADJUST OSCILLATORS	3	0	2	7	0	
M 515 H3-04 DO YOU REMOVE OR REPLACE COMPLETE OSCILLATORS	4	0	3	7	0	
M 516 H3-05 DO YOU REMOVE OR REPLACE OSCILLATOR COMPONENTS	3	0	2	6	0	
M 517 H3-06 DO YOU TROUBLESHOOT TO OSCILLATOR CIRCUIT LEVEL	1	0	1	1	0	
M 518 H3-07 DO YOU TROUBLESHOOT TO OSCILLATOR COMPONENTS	3	0	2	6	0	
M 519 H3-08 DO YOU USE OR REFER TO FEEDBACK	1	0	1	3	0	
M 520 H3-09 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)	3	0	1	8	0	
M 521 H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY	2	0	1	4	0	
M 522 H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY	1	0	1	3	0	
M 523 H3-12 DO YOU USE OR REFER TO DAMPING	1	0	1	3	0	
M 524 H3-13 DO YOU USE OR REFER TO REGENERATIVE FEEDBACK	2	0	2	4	0	
M 525 H3-14 DO YOU USE OR REFER TO PIEZOELECTRIC EFFECT	2	0	1	6	0	
M 526 H3-15 DO YOU USE OR REFER TO CRITICAL DAMPING	2	0	2	4	0	
M 527 H3-16 DO YOU USE OR REFER TO UNDER DAMPING	1	0	1	1	0	
M 528 H3-17 DO YOU USE OR REFER TO OVER DAMPING	1	0	1	1	0	
M 529 H3-18 DO YOU WORK WITH OSCILLATORS WHICH USE LC TANK CIRCUITS AS FDD	1	0	1	1	0	
M 530 H3-19 DO YOU WORK WITH OSCILLATORS WHICH USE RC NETWORKS AS FDD	1	0	1	4	0	
M 531 H3-20 DO YOU WORK WITH OSCILLATORS WHICH USE CRYSTALS AS FDD	2	0	1	4	0	
M 532 H3-21 DO YOU WORK WITH OSCILLATORS WHICH USE DON'T REMEMBER WHICH TYPE OF FDD	2	0	3	3	0	
M 533 H3-22 DO YOU WORK WITH SERIES HARTLEY SINUSOIDAL OSCILLATORS	1	0	1	1	0	
M 534 H3-23 DO YOU WORK WITH SHUNT HARTLEY SINUSOIDAL OSCILLATORS	1	0	1	1	0	
M 535 H3-24 DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS	1	0	1	1	0	
M 536 H3-25 DO YOU WORK WITH CLAPP SINUSOIDAL OSCILLATORS	0	0	1	0	0	
M 537 H3-26 DO YOU WORK WITH BUTLER SINUSOIDAL OSCILLATORS	0	0	0	0	0	
M 538 H3-27 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF OSCILLATORS	3	0	3	4	0	
I 539 I1-01 DO YOU WORK WITH MULTIVIBRATORS IN YOUR PRESENT JOB						MULTIVIBRATOR
I 540 I1-02 DO YOU INSPECT WAVE GENERATING OR SHAPING CIRCUITS	3	0	2	7	0	
I 541 I1-03 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING CIRCUITS	3	0	2	7	0	
I 542 I1-04 DO YOU CALIBRATE WAVE GENERATING OR SHAPING CIRCUITS	2	0	2	6	0	
I 543 I1-05 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUITS	3	0	2	7	0	
I 544 I1-06 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUIT COMPONENTS	2	0	1	6	0	
I 545 I1-07 DO YOU REMOVE OR REPLACE COMPLETE WAVE GENERATING OR SHAPING CIRCUITS	3	0	2	7	0	
I 546 I1-08 DO YOU REMOVE OR REPLACE WAVE GENERATING OR SHAPING COMPONENTS	1	0	0	3	0	
I 547 I1-09 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK CIRCUITS	2	0	1	6	0	

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPL SPL SPL SPL SPL
001 002 003 004 005

1 548 11-10 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC NETWORKS	2	0	1	7	0
1 549 11-11 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN CRYSTALS	2	0	1	4	0
1 550 11-12 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN DON'T REMEMBER WHICH TYPE OF FOD	2	0	1	4	0
1 551 11-13 DO YOU WORK WITH A STABLE MULTIVIBRATORS	1	0	0	3	0
1 552 11-14 DO YOU WORK WITH MONOSTABLE MULTIVIBRATORS	1	0	0	4	0
1 553 11-15 DO YOU WORK WITH BISTABLE MULTIVIBRATORS	1	0	0	4	0
1 554 11-16 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE	3	0	2	7	0
MULTIVIBRATORS					
1 555 12-01 DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR PRESENT JOB	2	0	1	7	0
LIMITERS AND CLAMPERS					
1 556 12-02 DO YOU WORK WITH SERIES DIODE LIMITERS	1	0	1	3	0
1 557 12-03 DO YOU WORK WITH SHUNT DIODE LIMITERS	2	0	1	6	0
1 558 12-04 DO YOU WORK WITH LIMITERS WITH BIAS	1	0	0	4	0
1 559 12-05 DO YOU WORK WITH ZENER DIODE LIMITERS	2	0	1	6	0
1 560 12-06 DO YOU WORK WITH TRANSISTOR LIMITERS	1	0	1	3	0
1 561 12-07 DO YOU WORK WITH DON'T KNOW WHICH TYPE OF LIMITERS	1	0	0	3	0
1 562 12-08 DO YOU WORK WITH BASIC DIODE CLAMPING CIRCUITS	1	0	0	3	0
1 563 12-09 DO YOU WORK WITH DIODE CLAMPING CIRCUITS WITH BIAS	1	0	0	3	0
1 564 12-10 DO YOU WORK WITH DON'T KNOW WHICH TYPE OF CLAMPING	1	0	1	1	0
CIRCUITS					
1 565 13-01 IN YOUR PRESENT JOB DO YOU WORK ON EQUIPMENT WHICH CONTAINS ELECTRON TUBES	4	0	3	6	10
ELECTRON TUBES					
1 566 13-02 DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD	2	0	2	3	0
1 567 13-03 DO YOU USE TUBE TESTERS TO CHECK ELECTRON TUBES	1	0	1	3	0
1 568 13-04 DO YOU USE MULTIMETERS TO CHECK ELECTRON TUBES	2	3	2	3	0
1 569 13-05 DO YOU USE SCOPES TO CHECK ELECTRON TUBES	2	0	2	3	0
1 570 13-06 DO YOU USE SUBSTITUTION TO CHECK ELECTRON TUBES	2	0	2	3	10
1 571 13-07 DO YOU USE OR REFER TO CUTOFF	1	0	1	1	0
1 572 13-08 DO YOU USE OR REFER TO PEAK INVERSE VOLTAGE RATING	1	0	1	0	0
1 573 13-09 DO YOU USE OR REFER TO PEAK CURRENT RATING	1	0	1	1	0
1 574 13-10 DO YOU USE OR REFER TO TRANSIT TIME	0	0	0	0	0
1 575 13-11 DO YOU USE OR REFER TO PLATE DISSIPATION RATING	0	0	0	1	0
1 576 13-12 DO YOU USE OR REFER TO SATURATION	1	0	1	1	0
1 577 13-13 DO YOU USE OR REFER TO DC PLATE RESISTANCE	0	0	0	1	0
1 578 13-14 DO YOU COMPUTE ACTUAL VALUES OF THE DC PLATE RESISTANCE FOR ELECTRON TUBES	0	0	0	0	0
RESISTANCE FOR ELECTRON TUBES					
1 579 13-15 DO YOU USE OR REFER TO PLATE VOLTAGE	1	0	2	1	0
1 580 13-16 DO YOU USE OR REFER TO PLATE CURRENT	1	0	2	1	0
1 581 13-17 DO YOU USE OR REFER TO GRID VOLTAGE	1	0	2	1	0
1 582 13-18 DO YOU USE OR REFER TO GRID CURRENT	1	0	2	1	0
1 583 13-19 DO YOU USE OR REFER TO CATHODE VOLTAGE	1	0	2	1	0
1 584 13-20 DO YOU USE OR REFER TO CATHODE CURRENT	1	0	2	1	0
1 585 13-21 DO YOU USE OR REFER TO TEE TRIODE AMPLIFICATION FACTOR THE AMPLIFICATION FACTOR FOR TRIODES IS DEFINED AS	0	0	0	1	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

0Y-TSK

SPL SPL SPL SPL
001 002 003 004 005

1 586 13-22 DO YOU CALCULATE ACTUAL VALUES OF TRIODE AMPLIFICATION FACTORS	0	0	0	0	0
1 587 13-23 DO YOU USE OR REFER TO MULTIGRID (TETRODE, PENTODE, ETC) AMPLIFICATION FACTORS	0	0	0	1	0
1 588 13-24 DO YOU USE OR REFER TO ELECTRON TUBE TRANSCONDUCTANCE (G _m WHICH IS MEASURED IN MHOS)	0	0	0	0	0
1 589 13-25 DO YOU CALCULATE ACTUAL VALUES OF ELECTRON TUBE TRANSCONDUCTANCES	0	0	0	0	0
1 590 13-26 DO YOU USE OR REFER TO THE ELECTRON TUBE PARAMETER CALLED AC PLATE RESISTANCE	0	0	0	1	0
1 591 13-27 DO YOU CALCULATE ACTUAL VALUES OF AC PLATE RESISTANCE	0	0	0	0	0
1 592 13-28 DO YOU USE OR REFER TO ELECTRON TUBE INTERELECTRODE CAPACITANCE	0	0	0	1	0
1 593 13-29 DO YOU USE OR REFER TO CHARACTERISTIC CURVES IN YOUR WORK WITH ELECTRON TUBES	0	0	0	1	0
1 594 13-30 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE VOLTAGE FOR A SPECIFIED BIAS	0	0	0	1	0
1 595 13-31 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE CURRENT FOR A SPECIFIED BIAS	0	0	0	0	0
1 596 13-32 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR CUTOFF	0	0	0	1	0
1 597 13-33 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR SATURATION	0	0	0	1	0
1 598 13-34 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER GAIN	1	0	1	1	0
1 599 13-35 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER EFFICIENCY	1	0	1	1	0
1 600 13-36 DO YOU USE TEST TUBE CHECKERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	1	0	1	1	0
1 601 13-37 DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	1	0	1	0	0
1 602 13-38 DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	1	0	1	0	0
1 603 13-39 DO YOU USE CHARACTERISTIC CURVES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	0	0	0	1	0
1 604 13-40 DO YOU CALCULATE ANY ELECTRON TUBE CAPACITANCES SUCH AS INPUT CAPACITANCE	0	0	0	0	0
1 605 13-41 DO YOU USE OR REFER TO TUBE SOCKET NOTATION	2	0	1	4	0
1 606 13-42 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS	2	0	1	4	0
1 607 13-43 DO YOU USE OR REFER TO THE TYPE OF MATERIAL OR THE OPERATING TEMPERATURE OF THE EMITTING SURFACE IN THE	0	0	0	0	0
1 608 13-44 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL SUCH AS MANUALS OR CHARTS	2	0	1	4	0
1 609 11-01 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS IN YOUR PRESENT JOB	1	0	1	3	0
1 610 11-02 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER	1	0	1	1	0

ELECTRON TUBE AMPLIFIERS
AND CIRCUITS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

07-75K

		SPL	SPL	SPL	SPL	SPL
		001	002	003	004	005
U 611 J1-03 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS		1	0	1	1	0
U 612 J1-04 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS		1	0	1	1	0
U 613 J1-05 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS		0	0	1	0	0
U 614 J1-06 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS		1	0	1	1	0
U 615 J1-07 DO YOU TROUBLESHOOT OR REPAIR DON'T KNOW WHICH TYPE OF AMPLIFIER		1	0	1	0	0
U 616 J2-01 DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD CATHODE)		1	0	1	3	0
U 617 J2-02 DO YOU WORK WITH CATHODE-RAY TUBES		6	6	5	8	0
U 618 J2-03 DO YOU USE OR REFER TO THE CHARACTERISTICS OF BEAM POWER TUBES		0	0	0	0	0
U 619 J2-04 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH BEAM POWER TUBES ARE USED		0	0	0	0	0
U 620 J2-05 DO YOU USE OR REFER TO THE CHARACTERISTICS OF THERMIONS		1	0	1	1	0
U 621 J2-06 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH THERMIONS ARE USED		1	0	1	1	0
U 622 J2-07 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTRON GUNS OF CATHODE-RAY TUBES (CRT)		3	6	2	6	0
U 623 J2-08 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES		2	6	1	4	0
U 624 J2-09 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROSTATIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES		2	6	1	3	0
U 625 J2-10 DO YOU USE OR REFER TO PHOSPHOR SCREENS		2	6	0	6	0
U 626 J2-11 DO YOU USE OR REFER TO ADVADAG COATINGS		1	0	1	1	0
U 627 J2-12 DO YOU USE OR REFER TO ELECTRON OPTICS		1	0	0	4	0
U 628 J2-13 DO YOU USE OR REFER TO PERSISTENCE		1	0	0	3	0
U 629 J2-14 DO YOU USE OR REFER TO DECAY TIMES		0	0	0	1	0
U 630 J2-15 DO YOU USE OR REFER TO FLUORESCENCE		1	0	1	3	0
U 631 J2-16 DO YOU USE OR REFER TO PHOSPHORESCENCE		1	6	0	4	0
U 632 J3-01 DO YOU WORK ON TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB		4	0	3	7	0
U 633 J3-02 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS		1	6	1	1	0
U 634 J3-03 DO YOU PERFORM TASKS ON FREQUENCY MIXERS		1	6	0	1	0
U 635 J3-04 DO YOU USE OR REFER TO THE HETERODYNING OF SIGNALS IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS		1	6	0	3	0
U 636 J3-05 DO YOU PERFORM TASKS ON REACTANCE MODULATIONS		0	0	0	0	0
U 637 J3-06 DO YOU PERFORM TASKS ON MODULATED OSCILLATIONS		0	0	0	0	0
U 638 J3-07 DO YOU WORK ON AM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB		1	0	1	0	0
U 639 J3-08 DO YOU INSPECT AM TRANSMIT OR RECEIVE SYSTEMS		0	0	0	0	0
U 640 J3-09 DO YOU CLEAN AM TRANSMIT OR RECEIVE SYSTEMS		0	0	0	0	0
U 641 J3-04 DO YOU ALIGN OR ADJUST A TRANSMIT OR RECEIVE SYSTEMS		0	0	0	0	0

HETERODYNING, MODULATION, AND DEMODULATION

AM SYSTEMS

SPECIAL PURPOSE ELECTRON TUBES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPL 001	SPL 002	SPL 003	SPL 004	SPL 005
BY TASK					
K 642 KI-05 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0
K 643 KI-06 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE	0	0	0	0	0
COMPONENTS					
K 644 KI-07 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE	0	0	0	0	0
SYSTEMS					
K 645 KI-08 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE	0	0	0	0	0
COMPONENTS					
K 646 KI-09 DO YOU PERFORM TASKS ON RF OSCILLATORS	0	0	0	0	0
K 647 KI-10 DO YOU PERFORM TASKS ON RF AMPLIFIERS	1	0	1	0	0
K 648 KI-11 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS	0	0	0	0	0
K 649 KI-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS	0	0	0	0	0
K 650 KI-13 DO YOU PERFORM TASKS ON LOCAL OSCILLATORS	0	0	0	0	0
K 651 KI-14 DO YOU PERFORM TASKS ON IF AMPLIFIERS	0	0	0	0	0
K 652 KI-15 DO YOU PERFORM TASKS ON DETECTORS	0	0	0	0	0
K 653 KI-16 DO YOU PERFORM TASKS ON DON'T REMEMBER WHICH AM STAGE	0	0	0	0	0
K 654 KI-17 DO YOU USE OR REFER TO AMPLITUDE STABILIZATION IN	0	0	0	0	0
TRANSMITTERS					
K 655 KI-18 DO YOU USE OR REFER TO FREQUENCY STABILIZATION IN	0	0	0	0	0
RECEIVERS					
K 656 KI-19 DO YOU USE OR REFER TO SENSITIVITY OF RECEIVERS	0	0	0	0	0
K 657 KI-20 DO YOU USE OR REFER TO SELECTIVITY OF RECEIVERS	0	0	0	0	0
K 658 KI-21 DO YOU USE OR REFER TO 2ND HARMONIC DISTORTION	0	0	0	0	0
K 659 KI-22 DO YOU USE OR REFER TO BANDPASS DISTORTION	0	0	0	0	0
K 660 KI-23 DO YOU USE OR REFER TO SQUARE LAW DISTORTION	0	0	0	0	0
K 661 KI-24 DO YOU USE OR REFER TO CO-CHANNEL INTERFERENCE	0	0	0	0	0
K 662 KI-25 DO YOU USE OR REFER TO IMAGE FREQUENCIES IN RECEIVERS	0	0	0	0	0
K 663 KI-26 DO YOU USE OR REFER TO SIGNAL TO IMAGE RATIOS OR	0	0	0	0	0
IMAGE REJECTION RATIOS					
K 664 KI-27 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM	0	0	0	0	0
TRANSMITTER SCHEMATIC DIAGRAMS					
K 665 KI-28 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM	0	0	0	0	0
RECEIVER SCHEMATIC DIAGRAMS					
K 666 K2-01 DO YOU WORK WITH FM TRANSMIT OR RECEIVE SYSTEMS IN	2	0	1	4	0
YOUR PRESENT JOB					
K 667 K2-02 DO YOU INSPECT FM TRANSMIT OR RECEIVE SYSTEMS	1	0	1	3	0
K 668 K2-03 DO YOU CLEAN FM TRANSMIT OR RECEIVE SYSTEMS	1	0	1	1	0
K 669 K2-04 DO YOU ALIGN FM TRANSMIT OR RECEIVE SYSTEMS	1	0	1	1	0
K 670 K2-05 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE	1	0	0	3	0
SYSTEMS					
K 671 K2-06 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE	0	0	0	1	0
COMPONENTS					
K 672 K2-07 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE	0	0	0	0	0
SYSTEMS					
K 673 K2-08 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE	0	0	0	0	0
COMPONENTS					
K 674 K2-09 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS	0	0	0	1	0
K 675 K2-10 DO YOU PERFORM TASKS ON FREQUENCY MULTIPLIERS	0	0	0	1	0

FM SYSTEMS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

0Y-15K

SPL SPL SPL SPL SPL
001 002 003 004 005

K 676 K2-11 DO YOU PERFORM TASKS ON DRIVERS (INTERMEDIATE AMPLIFIERS)	0	0	0	1	0
K 677 K2-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS	0	0	0	1	0
K 678 K2-13 DO YOU PERFORM TASKS ON RF AMPLIFIERS	0	0	0	1	0
K 679 K2-14 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS	0	0	0	1	0
K 680 K2-15 DO YOU PERFORM TASKS ON IF AMPLIFIERS	0	0	0	1	0
K 681 K2-16 DO YOU PERFORM TASKS ON LIMITERS	0	0	0	1	0
K 682 K2-17 DO YOU PERFORM TASKS ON FREQUENCY DISCRIMINATORS	0	0	0	1	0
K 683 K2-18 DO YOU TRACE SIGNALS ON CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS	1	0	0	3	0
K 684 K2-19 DO YOU TRACE SIGNALS ON CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS	1	0	0	3	0
K 685 K3-01 DO YOU CONVERT DECIMAL BASE 101 NUMBERS TO OCTAL (BASE A) NUMBERS	1	0	1	0	10
K 686 K3-02 DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS	2	0	2	3	10
K 687 K3-03 DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS	0	0	1	0	0
K 688 K3-04 DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS	0	0	0	0	0
K 689 K3-05 DO YOU CONVERT BINARY NUMBERS TO DECIMAL NUMBERS	2	0	1	3	0
K 690 K3-06 DO YOU CONVERT BINARY NUMBERS TO OCTAL NUMBERS	0	0	0	0	0
K 691 K3-07 DO YOU ADD BINARY NUMBERS TO GET A SUM	3	0	2	4	10
K 692 K3-08 DO YOU SUBTRACT BINARY NUMBERS USING THE END-AROUND-CARRY METHOD	1	0	1	0	0
K 693 K3-09 DO YOU SUBTRACT BINARY NUMBERS USING THE DIRECT SUBTRACTION METHOD	1	0	1	0	0
K 694 K3-10 DO YOU ADD OCTAL NUMBERS TO GET A SUM	0	0	0	0	0
K 695 K3-11 DO YOU PRESENT JOBS DO YOU PERFORM ANY TASKS RELATING TO LOGIC FUNCTIONS	9	0	7	18	0
L 696 L1-02 DO YOU CONSTRUCT TRUTH TABLES FOR AND LOGIC SYMBOLS OR GATES	4	0	3	6	0
L 697 L1-03 DO YOU CONSTRUCT TRUTH TABLES FOR OR LOGIC SYMBOLS OR GATES	3	0	3	4	0
L 698 L1-04 DO YOU CONSTRUCT TRUTH TABLES FOR AND OR OR LOGIC SYMBOLS WITH STATE INDICATORS	3	0	3	4	0
L 699 L1-05 DO YOU CONSTRUCT TRUTH TABLES FOR EXCLUSIVE OR LOGIC SYMBOLS OR GATES	3	0	3	3	0
L 700 L1-06 DO YOU USE OR REFER TO TRUTH TABLES FOR AND LOGIC SYMBOLS OR GATES	7	0	6	11	0
L 701 K1-07 DO YOU USE OR REFER TO TRUTH TABLES FOR OR LOGIC SYMBOLS OR GATES	4	0	6	10	0
L 702 K1-08 DO YOU USE OR REFER TO TRUTH TABLES FOR AND OR OR LOGIC SYMBOLS WITH STATE INDICATORS	6	0	6	10	0
L 703 L1-09 DO YOU USE OR REFER TO TRUTH TABLES FOR EXCLUSIVE OR LOGIC SYMBOLS	5	0	5	8	0
L 704 L1-10 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR AND GATES	7	0	7	13	0
L 705 L1-11 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR OR GATES	7	0	7	11	0
L 706 L1-12 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR NAND OR NOR GATES	9	0	7	15	0

LOGIC FUNCTIONS

NUMBERING SYSTEMS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

BY-TASK

SPL SPL SPL SPL
001 002 003 004 005

L 707 L1-13 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR EXCLUSIVE OR GATES	7	0	6	11	0
L 708 L2-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC TRANSISTOR LOGIC (ICTL) CIRCUITS	3	0	2	6	0
L 709 L2-02 DO YOU DRAW LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (ICTL) CIRCUITS	0	0	0	0	0
L 710 L2-03 DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC (ICML) CIRCUITS	0	0	1	0	0
L 711 L2-04 DO YOU DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN EQUATIONS	0	0	0	0	0
L 712 L2-05 DO YOU MEASURE INPUTS OR OUTPUTS OF LOGIC GATES	2	0	1	4	0
L 713 L2-06 DO YOU DEVELOP OR ANALYZE BOOLEAN EQUATIONS IN THE PROCESS OF TROUBLESHOOTING DIGITAL CIRCUITS	0	0	1	0	0
L 714 L2-07 DO YOU ANALYZE LOGIC CIRCUITS BY USING BOOLEAN ALGEBRA	1	0	1	1	0
L 715 L2-08 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (ICTL) CIRCUIT GATES	1	0	1	1	0
L 716 L2-09 DO YOU USE OR REFER TO TRUTH TABLES FOR CURRENT MODE LOGIC (ICML) CIRCUITS	1	0	1	1	0
L 717 L2-10 DO YOU USE OR REFER TO LOGIC DIAGRAMS CONSISTING OF MORE THAN ONE GATE	2	0	2	4	0
L 718 L2-11 DO YOU COMPUTE SUM AND CARRY EXPRESSIONS FOR SERIAL HALF OR FULL ADDER LOGIC DIAGRAMS	0	0	0	0	0
L 719 L2-12 DO YOU TRACE DATA FLOW THROUGH PARALLEL FULL ADDER LOGIC DIAGRAMS	0	0	0	0	0
L 720 L2-13 DO YOU WORK WITH ASTABLE (FREE RUNNING) MULTIVIBRATORS	1	0	1	3	0
L 721 L2-14 DO YOU WORK WITH BISTABLE (FLIP-FLOP) MULTIVIBRATORS	2	0	2	6	0
L 722 L2-15 DO YOU WORK WITH MONOSTABLE (ONE-SHOT) MULTIVIBRATORS	1	0	1	4	0
L 723 L2-16 DO YOU USE OR REFER TO FLIP-FLOP MULTIVIBRATOR SYMBOLS	2	0	1	6	0
L 724 L2-17 DO YOU USE OR REFER TO SINGLE-SHOT MULTIVIBRATOR SYMBOLS	1	0	1	4	0
L 725 L2-18 DO YOU USE OR REFER TO FLIP-FLOP CIRCUIT DIAGRAMS	2	0	2	6	0
L 726 L2-19 DO YOU USE OR REFER TO FLIP-FLOP TRUTH TABLES	2	0	1	6	0
L 727 L2-20 DO YOU USE OR REFER TO COMPLEMENTED FLIP-FLOP LOGIC SYMBOLS	1	0	1	1	0
L 728 L2-21 DO YOU USE OR REFER TO COMPLEMENTING FLIP-FLOP LOGIC SYMBOLS	1	0	1	1	0
L 729 L2-22 DO YOU MEASURE OUTPUT WAVESHAPES OF LOGIC CIRCUITS	1	0	1	3	0
L 730 L2-23 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTED FLIP-FLOP SCHEMATIC DIAGRAMS	1	0	1	3	0
L 731 L2-24 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS	1	0	1	3	0
L 732 L2-25 DO YOU CONSTRUCT TRUTH TABLES FOR J-K FLIP-FLOP LOGIC SYMBOLS	1	0	1	1	0

BOOLEAN EQUATIONS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

01-15K

	SPL 001	SPL 002	SPL 003	SPL 004	SPL 005	
L 733 L3-01 DO YOU WORK WITH DIGITAL COUNTERS IN YOUR PRESENT JOB	18	13	21	15	0	
L 734 L3-02 DO YOU USE OR REFER TO UP-COUNTERS	4	0	4	7	0	
L 735 L3-03 DO YOU USE OR REFER TO DOWN-COUNTERS	5	0	4	7	0	
L 736 L3-04 DO YOU USE OR REFER TO SERIAL COUNTERS	2	6	2	1	0	
L 737 L3-05 DO YOU USE OR REFER TO PARALLEL COUNTERS	1	0	1	0	0	COUNTERS
L 738 L3-06 DO YOU USE OR REFER TO RING COUNTERS	0	0	1	0	0	
L 739 L3-07 DO YOU USE OR REFER TO DECADE COUNTERS	5	0	6	4	0	
L 740 L3-08 DO YOU USE OR REFER TO COUNT DETECT CIRCUITS	1	0	1	0	0	
L 741 L3-09 DO YOU USE OR REFER TO DOWN CLOCKS	4	0	4	6	0	
L 742 L3-10 DO YOU USE OR REFER TO UP CLOCKS	4	0	5	4	0	
L 743 L3-11 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS	3	0	3	4	0	
L 744 L3-12 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENTING FLIP-FLOPS	2	0	3	3	0	
L 745 L3-13 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DECADE COUNTERS	2	0	2	4	0	
L 746 L3-14 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF RING COUNTERS	0	0	0	0	0	
L 747 L3-15 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE REGISTER	0	0	0	0	0	
L 748 L3-16 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS	0	0	0	1	0	
L 749 L3-17 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF COUNTERS	1	0	0	4	0	
L 750 L3-18 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS	1	0	1	1	0	
L 751 L3-19 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS	0	0	1	0	0	
L 752 L3-20 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE REGISTER	0	0	0	0	0	
L 753 L3-21 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR OTHER TYPES OF COUNTERS	1	0	1	4	0	
L 754 L3-22 DO YOU CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF DECADE COUNTERS	0	0	0	0	0	
L 755 L3-23 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP IN RING COUNTERS FOR SPECIFIC INPUT PULSES	1	0	1	0	0	
L 756 L3-24 DO YOU DETERMINE THE APPROPRIATE AND GATE NECESSARY IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT	1	0	2	0	0	
M 757 M1-01 DO YOU WORK WITH SAWTOOTH WAVE GENERATORS	7	0	7	10	0	
M 758 M1-02 DO YOU WORK WITH TRIANGULAR WAVE GENERATORS	0	0	0	0	0	
M 759 M1-03 DO YOU WORK WITH PULSED OSCILLATORS WITH REGENERATIVE FEEDBACK	2	0	1	6	0	
M 760 M1-04 DO YOU WORK WITH PULSED OSCILLATORS WITHOUT REGENERATIVE FEEDBACK	2	0	2	3	0	TIMING CIRCUITS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

Dy-Tsk

SPL SPL SPL SPL
001 002 003 004 005

M 761 M1-05 DO YOU WORK WITH BLOCKING OSCILLATORS
M 762 M1-06 DO YOU USE OR REFER TO RISE TIME
M 763 M1-07 DO YOU USE OR REFER TO FALL OR FLYBACK TIME
M 764 M1-08 DO YOU USE OR REFER TO SLEEP TIME
M 765 M1-09 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH
WAVEFORMS
M 766 M1-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH
WAVEFORMS
M 767 M1-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH
WAVEFORMS
M 768 M1-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH
WAVEFORMS
M 769 M2-01 DO YOU USE SIGNAL GENERATORS IN YOUR PRESENT JOB
M 770 M2-02 DO YOU PERFORM OPERATIONAL CHECKS WHILE USING SIGNAL
GENERATORS
M 771 M2-03 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS
ADJUSTING, ALIGNING, OR CALIBRATING WHILE USING SIGNAL
M 772 M2-04 DO YOU TROUBLESHOOT TO AN ASSEMBLY OR SUBASSEMBLY
WHILE USING SIGNAL GENERATORS
M 773 M2-05 DO YOU TROUBLESHOOT TO THE SMALLEST REPLACEABLE
COMPONENT WHILE USING SIGNAL GENERATORS
M 774 M2-06 DO YOU USE AUDIO SINE-WAVE GENERATORS
M 775 M2-07 DO YOU USE AUDIO NON-SINUSOIDAL WAVE GENERATORS SUCH
AS SQUARE WAVE, TRIANGLE, PULSE, OR SPIKE
M 776 M2-08 DO YOU USE RF GENERATORS LESS THAN 1,000 MH
M 777 M2-09 DO YOU USE RF GENERATORS GREATER THAN 1,000 MH
M 778 M2-10 DO YOU USE OTHER SPECIAL PURPOSE OR MULTI-FUNCTION
GENERATORS
M 779 M3-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING
WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS OR
M 780 M3-02 DO YOU INSPECT MOTORS
M 781 M3-03 DO YOU CLEAN OR LUBRICATE MOTORS
M 782 M3-04 DO YOU OPERATE MOTORS
M 783 M3-05 DO YOU REMOVE OR REPLACE COMPLETE MOTORS
M 784 M3-06 DO YOU REMOVE OR REPLACE MOTOR PARTS
M 785 M3-07 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE
CONNECTIONS OF MOTORS
M 786 M3-08 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF MOTORS
M 787 M3-09 DO YOU PERFORM ANY TASKS ON FIELD COILS
M 788 M3-10 DO YOU PERFORM ANY TASKS ON ARMATURES
M 789 M3-11 DO YOU PERFORM ANY TASKS ON ROTORS
M 790 M3-12 DO YOU PERFORM ANY TASKS ON BRUSHES
M 791 M3-13 DO YOU PERFORM ANY TASKS ON SLIP RINGS
M 792 M3-14 DO YOU PERFORM ANY TASKS ON COMMUTATORS
M 793 M3-15 DO YOU PERFORM ANY TASKS ON POLE PIECES

USE OF SIGNAL GENERATORS

MOTORS AND GENERATORS

TASK GROUP SUMMARY
PERCENT METERS PERFORMING

00-15K

SPL SPL SPL SPL SPL
001 002 003 004 005

M 794 M3-16 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OF THE FORCE OR TORQUE CREATED BY A MOTOR	0	0	0	0	0
M 795 M3-17 DO YOU DETERMINE OR MEASURE THE DIRECTION OF THE MECHANICAL FORCE OR TORQUE CREATED BY A MOTOR	0	0	0	0	0
M 796 M3-18 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OR DIRECTION OF THE INDUCED VOLTAGE IN MOTORS	0	0	1	0	0
M 797 M3-19 DO YOU WORK WITH SYNCHRONOUS MOTORS	2	0	1	6	0
M 798 M3-20 DO YOU WORK WITH INDUCTION MOTORS	4	13	3	4	0
M 799 M3-21 DO YOU WORK WITH SPLIT-PHASE MOTORS	5	6	6	4	0
M 800 M3-22 DO YOU WORK WITH SOME COMBINATION OF THE ABOVE MOTORS	4	6	4	3	0
M 801 M3-23 DO YOU INSPECT GENERATORS	17	13	20	13	10
M 802 M3-24 DO YOU CLEAN OR LUBRICATE GENERATORS	2	0	3	1	0
M 803 M3-25 DO YOU OPERATE GENERATORS	19	13	23	13	10
M 804 M3-26 DO YOU REMOVE OR REPLACE COMPLETE GENERATORS	2	0	2	1	0
M 805 M3-27 DO YOU REMOVE OR REPLACE GENERATOR PARTS	0	0	0	0	0
M 806 M3-28 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS	9	6	9	8	10
M 807 M3-29 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS	0	0	0	0	0
N 808 N1-01 DO YOU WORK WITH METERS IN YOUR PRESENT JOB	56	56	60	51	40
N 809 N1-02 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF PERMANENT MAGNETS	4	0	6	8	0
N 810 N1-03 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF MOVING COILS	7	0	8	8	0
N 811 N1-04 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF SPIRAL SPRINGS	5	0	5	7	0
N 812 N1-05 DO YOU READ METER SCALES	56	56	60	51	40
N 813 N1-06 DO YOU EXTEND THE RANGE OF AMMETERS	11	0	12	13	0
N 814 N1-07 DO YOU ZERO OHMMETERS	56	50	60	52	40
N 815 N1-08 DO YOU ZERO AMMETERS	25	13	28	23	30
N 816 N1-09 DO YOU EXTEND THE RANGE OF VOLTMETERS	20	13	25	15	0
N 817 N1-10 DO YOU USE OR REFER TO VOLTMETER SENSITIVITY (EXPRESSED IN UNITS OF OHMS PER VOLT)	20	6	17	28	20
N 818 N2-01 DO YOU WORK WITH SATURABLE REACTORS OR MAGNETIC AMPLIFIERS IN YOUR PRESENT JOB	1	0	0	4	0
N 819 N2-02 DO YOU INSPECT MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	0	0	0	1	0
N 820 N2-03 DO YOU CLEAN MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	0	0	0	0	0
N 821 N2-04 DO YOU ADJUST MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	0	0	0	0	0
N 822 N2-05 DO YOU TROUBLESHOOT MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	0	0	0	0	0
N 823 N2-06 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	0	0	0	0	0
N 824 N2-07 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIER OR SATURABLE REACTOR COMPONENTS	0	0	0	0	0

SATURABLE REACTORS AND MAGNETIC AMPLIFIERS

METER MOVEMENTS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

BY-TASK

SPL SPL SPL SPL
001 002 003 004 005

N 825 N2-08 DO YOU USE OR REFER TO HYSTERESIS CURVES OR LOOPS
N 826 N2-09 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT
WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF
N 827 N2-10 DO YOU MEASURE OUTPUT WAVEFORMS ACROSS REACTOR
WINDINGS OR LOAD RESISTORS OF SINGLE WINDING SATURABLE
N 828 N2-11 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT
WAVEFORMS FOR MAGNETIC AMPLIFIERS
N 829 N2-12 DO YOU USE OR REFER TO COERCITIVE FORCE IN SATURABLE
REACTORS
N 830 N2-13 DO YOU USE OR REFER TO RESIDUAL MAGNETISM IN
SATURABLE REACTORS
N 831 N2-14 DO YOU USE OR REFER TO FLUX DENSITY IN SATURABLE
REACTORS
N 832 N2-15 DO YOU USE OR REFER TO POINT OF SATURATION IN
SATURABLE REACTORS
N 833 N2-16 DO YOU USE OR REFER TO SATURABLE REACTOR SCHEMATIC
SYMBOLS
N 834 N3-01 DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT
JOB
N 835 N3-02 DO YOU USE OR REFER TO TRANSIENT INTERVALS
N 836 N3-03 DO YOU USE OR REFER TO PULSE WIDTH (PW)
N 837 N3-04 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)
N 838 N3-05 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY
(PRF)
N 839 N3-06 DO YOU USE OR REFER TO DIFFERENTIATING CIRCUITS
N 840 N3-07 DO YOU USE OR REFER TO INTEGRATING CIRCUITS
N 841 N3-08 DO YOU USE OR REFER TO THE CLASSIFICATION OF TIME
CONSTANTS (TC) AS LONG, MEDIUM, OR SHORT
N 842 N3-09 DO YOU DETERMINE WHETHER AN LR OR RC CIRCUIT IS
DIFFERENTIATING OR INTEGRATING BASED ON THE TIME CONSTANT
N 843 N3-10 DO YOU WORK WITH SQUARE WAVE GENERATORS
N 844 N3-11 DO YOU WORK WITH RECTANGULAR WAVE GENERATORS
O 845 O1-01 DO YOU WORK ON SINGLE SIDEBAND SYSTEMS IN YOUR
PRESENT JOB
O 846 O1-02 DO YOU INSPECT SSB TRANSMIT OR RECEIVE SYSTEMS
O 847 O1-03 DO YOU CLEAN SSB TRANSMIT OR RECEIVE SYSTEMS
O 848 O1-04 DO YOU ALIGN SSB TRANSMIT OR RECEIVE SYSTEMS
O 849 O1-05 DO YOU TROUBLESHOOT TO SSB TRANSMIT OR RECEIVE
SYSTEMS
O 850 O1-06 DO YOU TROUBLESHOOT TO SSB TRANSMIT OR RECEIVE
COMPONENTS
O 851 O1-07 DO YOU REMOVE OR REPLACE SSB TRANSMIT OR RECEIVE
SYSTEMS
O 852 O1-08 DO YOU REMOVE OR REPLACE SSB TRANSMIT OR RECEIVE
COMPONENTS

WAVESHAPING CIRCUITS

SINGLE SIDEBAND SYSTEMS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

NY-TSK

SPL SPL SPL SPL SPL
001 002 003 004 005

0 853 01-09 DO YOU PERFORM TASKS ON 55A AUDIO AMPLIFIERS	0	0	0	0	0
0 854 01-10 DO YOU PERFORM TASKS ON 55A BALANCED MODULATORS	0	0	0	0	0
0 855 01-11 DO YOU PERFORM TASKS ON 55A CARRIER OSCILLATIONS	0	0	0	0	0
0 856 01-12 DO YOU PERFORM TASKS ON 55A LC FILTERS	0	0	0	0	0
0 857 01-13 DO YOU PERFORM TASKS ON 55A CRYSTAL FILTERS	0	0	0	0	0
0 858 01-14 DO YOU PERFORM TASKS ON 55A MECHANICAL FILTERS	0	0	0	0	0
0 859 01-15 DO YOU PERFORM TASKS ON 55B OSCILLATORS	0	0	0	0	0
0 860 01-16 DO YOU PERFORM TASKS ON 55B MIXERS	0	0	0	0	0
0 861 01-17 DO YOU PERFORM TASKS ON 55A DRIVERS	0	0	0	0	0
0 862 01-18 DO YOU PERFORM TASKS ON 55A POWER AMPLIFIERS	0	0	0	0	0
0 863 01-19 DO YOU PERFORM TASKS ON 55B RF AMPLIFIERS	0	0	0	0	0
0 864 01-20 DO YOU PERFORM TASKS ON 55B FREQUENCY CONVERTERS	0	0	0	0	0
0 865 01-21 DO YOU PERFORM TASKS ON 55B IF AMPLIFIERS	0	0	0	0	0
0 866 01-22 DO YOU PERFORM TASKS ON 55B DEMODULATORS	0	0	0	0	0
0 867 01-23 DO YOU PERFORM TASKS ON 55B DON'T REMEMBER WHICH 55B	0	0	0	0	0
SYSTEM STAGES					
0 868 01-24 DO YOU USE OR REFER TO SELECTIVE FADING	0	0	0	0	0
0 869 01-25 DO YOU USE OR REFER TO PEAK POWER	0	0	0	0	0
0 870 01-26 DO YOU USE OR REFER TO FREQUENCY STABILITY	0	0	0	0	0
0 871 01-27 DO YOU USE OR REFER TO RESPONSE CURVES FOR	0	0	0	0	0
BANDWIDTH FILTERS					
0 872 01-28 DO YOU CALCULATE PEAK POWER OR EFFECTIVE POWER OF 55B	0	0	0	0	0
TRANSMITTERS					
0 873 01-29 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH 55B	0	0	0	0	0
TRANSMITTER SCHEMATIC DIAGRAMS					
0 874 01-30 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH 55B	0	0	0	0	0
RECEIVER SCHEMATIC DIAGRAMS					
0 875 02-01 DO YOU WORK ON PULSE MODULATION SYSTEMS IN YOUR	0	0	0	1	0
PRESENT JOB					
0 876 02-02 DO YOU INSPECT PULSE MODULATION SYSTEMS	0	0	0	1	0
0 877 02-03 DO YOU CLEAN PULSE MODULATION SYSTEMS	0	0	0	0	0
0 878 02-04 DO YOU ALIGN PULSE MODULATION SYSTEMS	0	0	0	0	0
0 879 02-05 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEMS	0	0	0	1	0
0 880 02-06 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEM	0	0	0	0	0
COMPONENTS					
0 881 02-07 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEMS	0	0	0	0	0
0 882 02-08 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEM	0	0	0	0	0
COMPONENTS					
0 883 02-09 DO YOU WORK ON PULSE-AMPLITUDE MODULATION (PAH)	0	0	0	1	0
SYSTEMS					
0 884 02-10 DO YOU WORK ON PULSE-DURATION MODULATION (PDH)	0	0	0	1	0
SYSTEMS					
0 885 02-11 DO YOU WORK ON PULSE-POSITION MODULATION (PPH)	0	0	0	0	0
SYSTEMS					
0 886 02-12 DO YOU WORK ON PULSE-CODE MODULATION (PCM) SYSTEMS	0	0	0	1	0
0 887 02-13 DO YOU WORK ON LINE PULSING MODULATION SYSTEMS	0	0	0	0	0
0 888 02-14 DO YOU WORK ON DON'T REMEMBER WHICH TYPE OF	0	0	0	0	0
MODULATION SYSTEM					

PULSE MODULATION SYSTEMS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMINGSPL SPL SPL SPL
001 002 003 004 005

DY-TSK

0 889 02-15 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
POWER SUPPLIES

0 890 02-16 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
CHARGING CHOKES AND CHARGING DIODES

0 891 02-17 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
PULSE FORMING NETWORKS

0 892 02-18 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
TIMERS

0 893 02-19 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
SWITCHES SUCH AS GAS THYRATRON

0 894 02-20 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
PULSE TRANSFORMERS

0 895 02-21 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
TRANSMITTER TUBES

0 896 02-22 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM RF
AMPLIFIERS

0 897 02-23 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
FREQUENCY CONVERTERS

0 898 02-24 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
IF AMPLIFIERS

0 899 02-25 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
DETECTORS

0 900 02-26 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
VIDEO AMPLIFIERS

0 901 02-27 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
POWER VIDEO AMPLIFIERS

0 902 02-28 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM
DON'T REMEMBER WHICH PULSE MODULATION SYSTEM STAGES

0 903 02-29 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY
(PRF)

0 904 02-30 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)

0 905 02-31 DO YOU USE OR REFER TO PULSE WIDTH (PW)

0 906 02-32 DO YOU USE OR REFER TO PULSE SHAPE

0 907 02-33 DO YOU USE OR REFER TO PEAK POWER

0 908 02-34 DO YOU USE OR REFER TO AVERAGE POWER

0 909 02-35 DO YOU CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE
RECURRENCE FREQUENCY (PRF)

0 910 02-36 DO YOU MEASURE PULSE RECURRENCE TIME (PRT) OR PULSE
RECURRENCE FREQUENCY (PRF)

0 911 02-37 DO YOU USE FORMULAS TO CALCULATE AVERAGE POWER OR
PEAK POWER OF PULSE MODULATION TRANSMIT SYSTEMS

0 912 02-38 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE
MODULATION TRANSMITTER SCHEMATIC DIAGRAMS

0 913 02-39 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE
MODULATION RECEIVER SCHEMATIC DIAGRAMS

0 914 03-01 DO YOU WORK WITH ANTENNAS IN YOUR PRESENT JOB

0 915 03-02 DO YOU INSPECT ANTENNAS

30 38 37 11 30
31 44 38 11 30

ANTENNAS

PERFORM TASKS BY DAFSC JNPS
TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

CY-TSX

	SPL 001	SPL 002	SPL 003	SPL 004	SPL 005
0 916 03-03 DO YOU CLEAN ANTENNAS	29	38	36	8	30
0 917 03-04 DO YOU PHYSICALLY ALIGN ANTENNAS	16	25	21	4	10
0 918 03-05 DO YOU ELECTRICALLY ALIGN ANTENNAS	5	3	6	4	0
0 919 03-06 DO YOU TROUBLESHOOT TO ANTENNAS	9	0	10	7	20
0 920 03-07 DO YOU TROUBLESHOOT TO ANTENNA COMPONENTS	3	0	4	1	0
0 921 03-08 DO YOU REMOVE OR INSTALL ANTENNAS	27	38	35	7	30
0 922 03-09 DO YOU REMOVE OR REPLACE COMPONENTS OF ANTENNAS	10	0	14	3	20
0 923 03-10 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF E OR ELECTRIC FIELD LINES	1	0	1	0	0
0 924 03-11 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF H OR MAGNETIC FIELD LINES	0	0	1	0	0
0 925 03-12 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES IN RELATION TO THE ELECTRIC LINES OF FORCE FOR ANTENNAS	0	0	0	0	0
0 926 03-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE OF CORRECT LENGTH (HALF-WAVE) ACT AS	0	0	0	0	0
0 927 03-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE LONGER THAN A HALF-WAVE ACT AS INDUCTIVE LOADS	0	0	0	0	0
0 928 03-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE SHORTER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS	0	0	0	0	0
0 929 03-16 DO YOU WORK WITH HERTZ ANTENNAS	1	0	2	1	0
0 930 03-17 DO YOU WORK WITH MARCONI ANTENNAS	0	0	0	0	0
0 931 03-18 DO YOU WORK WITH BROADSIDE ARRAYS	1	0	2	0	0
0 932 03-19 DO YOU WORK WITH END-FIRE ARRAYS	1	0	2	0	0
0 933 03-20 DO YOU WORK WITH CARDIOTID ARRAYS	0	0	0	0	0
0 934 03-21 DO YOU WORK WITH COLLINER ARRAYS	1	0	2	0	0
0 935 03-22 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC INDUCTION FIELDS WHEN WORKING WITH ANTENNAS	0	0	0	1	0
0 936 03-23 DO YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF ANTENNAS	0	0	0	1	0
0 937 03-24 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC RADIATION FIELDS WHEN WORKING WITH ANTENNAS	1	0	1	3	0
0 938 03-25 DO YOU MEASURE ELECTROMAGNETIC RADIATION FIELDS OF ANTENNAS	0	0	0	1	0
0 939 03-26 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA RADIATION	0	0	0	0	0
0 940 03-27 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA INDUCTION FIELD	0	0	0	0	0
0 941 03-28 ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY POLARIZED	5	6	6	3	0
0 942 03-29 ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY POLARIZED	4	0	6	3	0
0 943 03-30 DO YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS YOU WORK ON	1	0	1	0	0
0 944 03-31 DO YOU CONSTRUCT, OR MAKE THE CALCULATIONS NECESSARY TO CONSTRUCT, ANTENNAS OF CORRECT LENGTH FOR	0	0	1	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

BY-TSK

SPL SPL SPL SPL
001 002 003 004 005

0 945 03-32 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS	0	6	0	0	0
0 946 03-33 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS DIRECTORS	0	6	0	0	0
0 947 03-34 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS REFLECTORS	0	6	0	0	0
0 948 03-35 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN DON'T REMEMBER WHAT KIND OF ELEMENTS	8	13	10	4	0
0 949 03-36 DO YOU WORK ON UNIDIRECTIONAL ANTENNAS	5	0	7	3	10
0 950 03-37 DO YOU WORK ON BIDIRECTIONAL ANTENNAS	2	0	3	0	10
0 951 03-38 DO YOU WORK ON DON'T REMEMBER THE DIRECTIONALITY	11	19	14	4	0
0 952 03-39 DO YOU WORK WITH ROTAR ANTENNA ARRAYS	1	6	1	0	0
P 953 PI-01 IN YOUR PRESENT JOB DO YOU WORK WITH TRANSMISSION LINES (TRANSMISSION LINES ARE DEFINED TO INCLUDE LEADS	4	0	5	3	0
P 954 PI-02 DO YOU REFER TO OR USE COPPER LOSS OR I2R LOSS IN TRANSMISSION LINES	0	0	0	0	0
P 955 PI-03 DO YOU REFER TO OR USE SKIN EFFECTS OF HIGH FREQUENCY CURRENTS IN TRANSMISSION LINES	0	0	0	0	0
P 956 PI-04 DO YOU REFER TO OR USE RADIATION LOSS IN TRANSMISSION LINES	0	0	0	0	0
P 957 PI-05 DO YOU USE OR REFER TO DIELECTRIC LOSS IN TRANSMISSION LINES	0	0	0	0	0
P 958 PI-06 DO YOU USE OR REFER TO LEAKAGE LOSSES IN TRANSMISSION LINES	0	0	0	0	0
P 959 PI-07 DO YOU WORK WITH TWISTED PAIR TRANSMISSION LINES	1	0	1	1	0
P 960 PI-08 DO YOU WORK WITH THIN LEAD TRANSMISSION LINES	1	0	1	1	0
P 961 PI-09 DO YOU WORK WITH OPEN TWO-WIRE TRANSMISSION LINES	1	0	2	1	0
P 962 PI-10 DO YOU WORK WITH FLEXIBLE COAXIAL CABLE TRANSMISSION LINES	3	0	3	3	0
P 963 PI-11 DO YOU WORK WITH RIGID COAXIAL CABLE TRANSMISSION LINES	1	0	1	0	0
P 964 PI-12 DO YOU TROUBLESHOOT TRANSMISSION LINES	1	0	2	1	0
P 965 PI-13 DO YOU ANALYZE VOLTAGE OR CURRENT WAVEFORMS IN TRANSMISSION LINES TO DETERMINE THE TYPE OF TERMINATION	0	0	1	0	0
P 966 PI-14 DO YOU SELECT APPROPRIATE TRANSMISSION LINES TERMINATIONS TO ACHIEVE DESIRED WAVEFORMS	0	0	0	0	0
P 967 PI-15 DO YOU USE OR REFER TO SCHEMATIC SYMBOLS FOR LINE TERMINATIONS IN TERMS OF CIRCUIT TERMINATIONS	0	0	0	1	0
P 968 PI-16 DO YOU MEASURE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES	0	0	0	0	0
P 969 PI-17 DO YOU CALCULATE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES	0	0	0	0	0
P 970 PI-18 DO YOU PERFORM THE CALCULATIONS NECESSARY TO DETERMINE THE IMPEDANCE AND LENGTH OF QUARTER - WAVELENGTH	0	0	0	0	0

TRANSMISSION LINES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

0-15A

SPL SPL SPL SPL SPL
001 002 003 004 005

P 971	PI-19 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING MATCHING TRANSFORMERS	0	0	1	0	0
P 972	PI-20 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING DELTA MATCHING	0	0	0	0	0
P 973	PI-21 DO YOU SELECT THE TYPE OF TRANSMISSION LINE NEEDED FOR PARTICULAR JOBS WITHOUT REFERRING TO TECHNICAL DATA	0	0	0	0	0
P 974	PI-22 DO YOU USE OR REFER TO THE TERM CHARACTERISTIC IMPEDANCE (Z0) OF TRANSMISSION LINES	0	0	0	1	0
P 975	PI-23 DO YOU CALCULATE THE CHARACTERISTIC IMPEDANCE (Z0) OF TRANSMISSION LINES	0	0	0	0	0
P 976	PI-24 DO YOU USE OR REFER TO THE TERM CUTOFF FREQUENCY OF TRANSMISSION LINES	0	0	0	0	0
P 977	PI-25 DO YOU USE OR REFER TO THE TERM VELOCITY FACTOR (K) OF TRANSMISSION LINES	0	0	0	0	0
P 978	PI-26 DO YOU COMPUTE THE ELECTRICAL LENGTH OF TRANSMISSION LINES FOR PARTICULAR FREQUENCIES	0	0	0	0	0
P 979	PI-27 DO YOU CONSTRUCT TRANSMISSION LINES OF PARTICULAR ELECTRICAL LENGTH FOR GIVEN FREQUENCIES	0	0	0	0	0
P 980	PI-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT AS THE FREQUENCY INCREASES AND THE PHYSICAL LENGTH OF	0	0	0	0	0
P 981	PI-29 DO YOU WORK WITH NONRESONANT (FLAT) TRANSMISSION LINES	1	0	1	1	0
P 982	PI-30 DO YOU WORK WITH RESONANT TRANSMISSION LINES	0	0	0	0	0
P 983	PI-31 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING STAR MATCHING	0	0	0	0	0
P 984	PI-01 DO YOU WORK WITH WAVEGUIDES OR CAVITY RESONATORS IN YOUR PRESENT JOB	23	6	26	23	10
P 985	PI-02 DO YOU INSPECT WAVEGUIDES OR CAVITY RESONATORS	23	6	26	23	10
P 986	PI-03 DO YOU CLEAN WAVEGUIDES OR CAVITY RESONATORS	17	6	20	15	10
P 987	PI-04 DO YOU BEND WAVEGUIDES OR CAVITY RESONATORS	5	0	6	4	0
P 988	PI-05 DO YOU TWIST WAVEGUIDES OR CAVITY RESONATORS	3	0	3	4	0
P 989	PI-06 DO YOU PRESSURIZE WAVEGUIDES OR CAVITY RESONATORS	1	0	1	1	0
P 990	PI-07 DO YOU PURGE WAVEGUIDES OR CAVITY RESONATORS	12	6	13	13	10
P 991	PI-08 DO YOU TROUBLESHOOT WAVEGUIDES OR CAVITY RESONATORS	5	0	6	6	0
P 992	PI-09 DO YOU REMOVE OR INSTALL COMPLETE WAVEGUIDES	17	6	21	13	10
P 993	PI-10 DO YOU REMOVE OR INSTALL WAVEGUIDE SECTIONS	7	6	7	8	0
P 994	PI-11 DO YOU REMOVE OR INSTALL DUMMY LOADS	1	6	1	1	0
P 995	PI-12 DO YOU REMOVE OR INSTALL F BENDS	0	0	1	0	0
P 996	PI-13 DO YOU REMOVE OR INSTALL H BENDS	0	0	1	0	0
P 997	PI-14 DO YOU REMOVE OR INSTALL OTHER BENDS	1	0	2	0	0
P 998	PI-15 DO YOU REMOVE OR INSTALL COKE JOINTS	0	0	1	0	0
P 999	PI-16 DO YOU REMOVE OR INSTALL ROTATING JOINTS	0	0	0	0	0
P1000	PI-17 DO YOU REMOVE OR INSTALL DIRECTIONAL COUPLERS	1	6	1	0	0
P1001	PI-18 DO YOU REMOVE OR INSTALL BIDIRECTIONAL COUPLERS	0	0	1	0	0
P1002	PI-19 DO YOU USE OR REFER TO "A" WALL OF WAVEGUIDES	0	0	0	0	0

WAVEGUIDES AND CAVITY RESONATORS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	DY-TSK				
	SPL 001	SPL 002	SPL 003	SPL 004	SPL 005
P1003 P2-20 DO YOU USE OR REFER TO "H" WALL OF WAVEGUIDES	0	0	0	0	0
P1004 P2-21 DO YOU USE OR REFER TO CUTOFF FREQUENCY OF WAVEGUIDES	1	0	1	1	0
P1005 P2-22 DO YOU USE OR REFER TO FREQUENCY-DETERMINING WALL OF WAVEGUIDES	0	0	0	0	0
P1006 P2-23 DO YOU USE OR REFER TO POWER-DETERMINING WALL OF WAVEGUIDES	0	0	1	0	0
P1007 P2-24 DO YOU USE OR REFER TO ELECTRIC FIELD BOUNDARY CONDITIONS	0	0	0	0	0
P1008 P2-25 DO YOU USE OR REFER TO MAGNETIC FIELD BOUNDARY CONDITIONS	0	0	0	0	0
P1009 P2-26 DO YOU USE OR REFER TO DUPLEXER FIELD BOUNDARY CONDITIONS	0	0	0	0	0
P1010 P2-27 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST WAVEGUIDES ARE MADE WITH A "H" WALL SIZE OF .7 WAVELENGTHS	0	0	0	0	0
P1011 P2-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST "H" WALLS RANGE FROM .2 TO .5 WAVELENGTHS IN SIZE, WITH .35	0	0	0	0	0
P1012 P2-29 ARE YOU CONCERNED WITH THE MATERIAL (SUCH AS BRASS) WHICH WAVEGUIDES ARE MADE OF	1	0	1	1	0
P1013 P2-30 DO YOU COMPUTE THE LENGTH OF A WAVEGUIDE FOR SPECIFIC INSTALLATION	0	0	0	0	0
P1014 P2-31 DO YOU USE THE RIGHT HAND RULE TO DETERMINE THE DIRECTION OF PROPAGATION, DIRECTION OF "E" FIELD, OR	0	0	0	0	0
P1015 P2-32 DO YOU USE OR REFER TO THE TIME PHASE OF PEAK "E" OR "H" LINES IN WAVEGUIDES	0	0	0	0	0
P1016 P2-33 DO YOU MEASURE THE TIME PHASE OF "E" OR "H" LINES IN WAVEGUIDES	0	0	0	0	0
P1017 P2-34 DO YOU USE OR REFER TO THE SPACE QUADRATURE OF "E" OR "H" LINES IN WAVEGUIDES	0	0	0	0	0
P1018 P2-35 ARE HIGH POWER PROBES USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	0	0	0	0	0
P1019 P2-36 ARE LOW POWER PROBES USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	0	0	1	0	0
P1020 P2-37 ARE LOOPS USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	0	0	1	0	0
P1021 P2-38 ARE APERTURES (WINDOWS OR IRISES) USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	9	0	9	11	0
P1022 P2-39 ARE DONUT REMEMBERS THE KIND OF ENERGY COUPLING USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	5	0	4	10	0
P1023 P2-40 DO YOU DETERMINE WHERE PROBES SHOULD BE MOUNTED IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO	0	0	0	0	0
P1024 P2-41 DO YOU DETERMINE THE POSITIONING OF LOOPS IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO	0	0	0	0	0

PERFORMANCE TASKS BY DAFPC GROUPS
TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

0Y-T5N

SPL SPL SPL SPL SPL
001 002 003 004 005

P1025 P2-42 DO YOU DETERMINE THE POSITIONING OR SIZE OF APERTURES IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO	0	0	0	0	0
P1026 P2-43 ARE CHOKER JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	1	0	0	3	0
P1027 P2-44 ARE ROTATING JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	0	0	0	1	0
P1028 P2-45 ARE DONUT REMEMBERS THE KIND OF JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	7	0	8	7	0
P1029 P2-46 DO YOU TUNE CAVITY RESONATORS USING CAPACITIVE TUNING	1	0	1	1	0
P1030 P2-47 DO YOU TUNE CAVITY RESONATORS USING INDUCTIVE TUNING	1	0	0	3	0
P1031 P2-48 DO YOU TUNE CAVITY RESONATORS USING VOLUME TUNING	1	0	1	1	0
P1032 P2-49 DO YOU TUNE CAVITY RESONATORS USING DONUT REMEMBER THE METHOD OF TUNING	3	0	4	3	0
P1033 P2-50 DO YOU MEASURE THE FREQUENCY OF SIGNALS IN CAVITY RESONATORS	1	0	1	1	0
P1034 P3-01 DO YOU PRESENT JOB DO YOU WORK WITH KLYSTRONS, TRAVELLING WAVE TUBES (TWT), PARAMETRIC AMPLIFIERS, OR	5	0	6	4	0
P1035 P3-02 DO YOU USE OR REFER TO INTERELECTRODE CAPACITANCE	1	0	1	1	0
P1036 P3-03 DO YOU USE OR REFER TO ELECTRON TRANSIT TIME	0	0	1	0	0
P1037 P3-04 DO YOU USE OR REFER TO LAD INDUCTANCE	0	0	1	0	0
P1038 P3-05 DO YOU USE OR REFER TO RF LOSSES IN EXTERNAL CIRCUITRY	1	0	2	1	0
P1039 P3-06 DO YOU USE OR REFER TO PRINCIPLE OF ELECTRON VELOCITY MODULATION	0	0	0	0	0
P1040 P3-07 DO YOU USE OR REFER TO ELECTRON BUNCHING	0	0	0	0	0
P1041 P3-08 DO YOU WORK WITH TWO-CAVITY KLYSTRONS	0	0	1	0	0
P1042 P3-09 DO YOU WORK WITH THREE-CAVITY KLYSTRONS	1	0	1	0	0
P1043 P3-10 DO YOU WORK WITH REFLEX KLYSTRONS	2	0	2	3	0
P1044 P3-11 DO YOU WORK WITH TRAVELLING-WAVE TUBES (TWT)	0	0	1	0	0
P1045 P3-12 DO YOU WORK WITH NONDEGENERATIVE PARAMETRIC AMPLIFIERS	0	0	0	0	0
P1046 P3-13 DO YOU WORK WITH UP-CONVERTER PARAMETRIC AMPLIFIERS	0	0	0	0	0
P1047 P3-14 DO YOU WORK WITH MAGNETRONS	0	0	0	0	0
P1048 P3-15 DO YOU INSPECT KLYSTRONS OR TWT	1	0	2	1	0
P1049 P3-16 DO YOU CLEAN KLYSTRONS OR TWT	0	0	1	0	0
P1050 P3-17 DO YOU TUNE KLYSTRONS OR TWT ELECTRICALLY	1	0	2	0	0
P1051 P3-18 DO YOU TUNE KLYSTRONS OR TWT MECHANICALLY	2	0	3	0	0
P1052 P3-19 DO YOU PERFORM OPERATIONAL CHECKS OF KLYSTRONS OR TWT	1	0	2	0	0
P1053 P3-20 DO YOU TROUBLESHOOT KLYSTRONS OR TWT	0	0	0	0	0
P1054 P3-21 DO YOU REMOVE OR REPLACE COMPLETE KLYSTRON OR TWT	1	0	1	0	0
P1055 P3-22 DO YOU REMOVE OR REPLACE KLYSTRON OR TWT COMPONENTS	0	0	1	0	0
P1056 P3-23 DO YOU INSPECT PARAMETRIC AMPLIFIERS	0	0	0	0	0
P1057 P3-24 DO YOU CLEAN PARAMETRIC AMPLIFIERS	0	0	0	0	0
P1058 P3-25 DO YOU ADJUST PARAMETRIC AMPLIFIERS	0	0	0	0	0

MICROWAVE AMPLIFIERS AND
OSCILLATORS

PCT MORS PERK TASKS BY DAFSC GRPS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMINGSPL SPL SPL SPL
001 002 003 004 005

OY-TSK

P1059 P3-26 DO YOU TUNE PARAMETRIC AMPLIFIERS
P1060 P3-27 DO YOU PERFORM OPERATIONAL CHECKS OF PARAMETRIC
AMPLIFIERS
P1061 P3-28 DO YOU TROUBLESHOOT PARAMETRIC AMPLIFIERS
P1062 P3-29 DO YOU REMOVE OR REPLACE COMPLETE PARAMETRIC
AMPLIFIER
P1063 P3-30 DO YOU REMOVE OR REPLACE PARAMETRIC AMPLIFIER
COMPONENTS
P1064 P3-31 DO YOU INSPECT MAGNETRONS
P1065 P3-32 DO YOU CLEAN MAGNETRONS
P1066 P3-33 DO YOU ADJUST MAGNETRONS
P1067 P3-34 DO YOU TUNE MAGNETRONS
P1068 P3-35 DO YOU PERFORM OPERATIONAL CHECKS OF MAGNETRONS
P1069 P3-36 DO YOU TROUBLESHOOT MAGNETRONS
P1070 P3-37 DO YOU REMOVE OR REPLACE COMPLETE MAGNETRON
P1071 P3-38 DO YOU REMOVE OR REPLACE MAGNETRON COMPONENTS
P1072 P3-39 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS COLLECTOR PLATES
P1073 P3-40 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS CATCHER CAVITIES
P1074 P3-41 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS CATCHER GRIDS
P1075 P3-42 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS FEEDBACK LOOPS
P1076 P3-43 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS DRIFT SPACES
P1077 P3-44 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS BUNCHER GRIDS
P1078 P3-45 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS BUNCHER CAVITIES
P1079 P3-46 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS CONTROL GRIDS
P1080 P3-47 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
TWO-CAVITY KLYSTRONS CATHODES
P1081 P3-48 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
REFLEX KLYSTRON REFLECTOR (REFLECTOR) PLATES
P1082 P3-49 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
REFLEX KLYSTRON GRIDS
P1083 P3-50 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
REFLEX KLYSTRON GRID CAVITY GAPS
P1084 P3-51 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
REFLEX KLYSTRON RESONANT CAVITIES
P1085 P3-52 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
REFLEX KLYSTRON MAGNETIC COUPLING LOOPS
P1086 P3-53 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
REFLEX KLYSTRON FILAMENTS
P1087 P3-54 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF
REFLEX KLYSTRON CATHODES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

01-15A

	SPL	SPL	SPL	SPL	SPL
	001	002	003	004	005
P1088 P3-55 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON OUTPUT LEADS	1	0	1	3	0
P1089 P3-56 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES FILAMENTS	0	0	0	0	0
P1090 P3-57 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES CATHODES	0	0	0	0	0
P1091 P3-58 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES MODULATOR GRIDS	0	0	0	0	0
P1092 P3-59 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES ANODES	0	0	0	0	0
P1093 P3-60 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES HELIXES	0	0	0	0	0
P1094 P3-61 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES COLLECTORS	0	0	0	0	0
P1095 P3-62 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES MAGNETS	0	0	0	0	0
P1096 P3-63 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES ATTENUATORS	0	0	0	0	0
P1097 P3-64 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE CIRCULATORS	0	0	0	0	0
P1098 P3-65 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER SIGNAL CAVITIES	0	0	0	0	0
P1099 P3-66 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER IDLER CAVITIES	0	0	0	0	0
P1100 P3-67 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER VARACTOR DIODES	0	0	0	0	0
P1101 P3-68 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE ISOLATORS	0	0	0	0	0
P1102 P3-69 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER REVERSE-BIAS BATTERIES	0	0	0	0	0
P1103 P3-70 DO YOU PERFORM TASKS ON ANODES	0	0	0	0	0
P1104 P3-71 DO YOU PERFORM TASKS ON ANODE COOLING PINS	0	0	0	0	0
P1105 P3-72 DO YOU PERFORM TASKS ON COUPLING LOOPS	0	0	0	0	0
P1106 P3-73 DO YOU PERFORM TASKS ON HEATER LEADS	0	0	0	0	0
P1107 P3-74 DO YOU PERFORM TASKS ON RESONANT CAVITIES	0	0	0	0	0
P1108 P3-75 DO YOU PERFORM TASKS ON CATHODES	0	0	0	0	0
P1109 P3-76 DO YOU PERFORM TASKS ON MAGNETS	0	0	0	0	0
Q1110 Q1-01 DO YOU USE OR REFER TO STORAGE REGISTERS	0	0	0	0	0
Q1111 Q1-02 DO YOU USE OR REFER TO SHIFT REGISTERS	0	0	1	0	0
Q1112 Q1-03 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT REGISTERS	0	0	0	0	0
Q1113 Q1-04 DO YOU USE OR REFER TO LOGIC SYMBOLS OF STORAGE REGISTERS	0	0	0	0	0
Q1114 Q1-05 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS	1	0	1	0	0
Q1115 Q1-06 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF REGISTERS	0	0	1	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPL SPL SPL SPL
001 002 003 004 005

Q116 Q1-07 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES	2	0	3	0	0	0
Q117 Q2-01 DO YOU WORK WITH DIGITAL COUNTERS, REGISTERS, OR STORAGE DEVICES IN YOUR PRESENT JOB	4	0	6	3	0	0
Q118 Q2-02 DO YOU USE OR REFER TO DELAY LINES	0	0	0	0	0	0
Q119 Q2-03 DO YOU USE OR REFER TO MAGNETIC CORES	0	0	0	0	0	0
Q120 Q2-04 DO YOU USE OR REFER TO MAGNETIC DRUMS	0	0	0	0	0	0
Q121 Q2-05 DO YOU USE OR REFER TO MAGNETIC TAPES	0	0	0	0	0	0
Q122 Q2-06 DO YOU USE OR REFER TO ACCESS TIME ON SPEED OR MEMORY SYSTEMS	1	0	1	0	0	0
Q123 Q2-07 DO YOU USE OR REFER TO WORD CAPACITY OF MEMORY SYSTEMS	0	0	0	0	0	0
Q124 Q2-08 DO YOU USE OR REFER TO VOLATILITY OF MEMORY SYSTEMS	0	0	0	0	0	0
Q125 Q2-09 DO YOU USE OR REFER TO LOGIC SYMBOL OF DELAY LINES	0	0	0	0	0	0
Q126 Q3-01 IN YOUR PRESENT JOB, DO YOU WORK WITH DIGITAL-TO-ANALOG (D/A) CONVERTERS, ANALOG-TO-DIGITAL (A/D) DIGITAL-TO-ANALOG (D/A) CONVERTERS FOR GIVEN INPUT	0	0	0	0	0	0
Q127 Q3-02 DO YOU COMPUTE OUTPUT VOLTAGES FOR ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS FOR GIVEN INPUT	0	0	0	0	0	0
Q128 Q3-03 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE COUNT IN ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) COUNT IN ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A)	0	0	0	0	0	0
Q129 Q3-04 DO YOU COMPUTE ANALOG VOLTAGES FOR GIVEN BINARY COUNTS IN ELECTRONIC DIGITAL-TO-ANALOG (D/A) CONVERTERS	0	0	0	0	0	0
Q130 Q3-05 DO YOU PERFORM SAMPLE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	0	0	0	0	0	0
Q131 Q3-06 DO YOU PERFORM HOLD FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	0	0	0	0	0	0
Q132 Q3-07 DO YOU PERFORM COMPARE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	0	0	0	0	0	0
Q133 Q3-08 DO YOU PERFORM DIGITIZE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	0	0	0	0	0	0
Q134 Q3-09 DO YOU PERFORM DON'T REMEMBER WHICH FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER	0	0	0	1	0	0
Q135 Q3-10 DO YOU USE OR REFER TO SAMPLE FUNCTION OF A/D CONVERTERS	0	0	0	0	0	0
Q136 Q3-11 DO YOU USE OR REFER TO HOLD FUNCTION OF A/D CONVERTERS	0	0	0	0	0	0
Q137 Q3-12 DO YOU USE OR REFER TO COMPARE FUNCTION OF A/D CONVERTERS	0	0	0	0	0	0
Q138 Q3-13 DO YOU USE OR REFER TO DIGITAL FUNCTION OF A/D CONVERTERS	0	0	0	0	0	0
Q139 Q3-14 DO YOU PERFORM ANY TASKS ON MECHANICAL ANALOG-TO-DIGITAL (A/D) CONVERTERS	0	0	0	0	0	0

DIGITAL TO ANALOG CONVERTERS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		SPL						SPL						SPL						SPL							
		001		002		003		004		005		006		007		008		009		010							
PHANTASTRONS																											
11140	11-01 DO YOU WORK WITH PHANTASTRON CIRCUITRY IN YOUR PRESENT JOB	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
11141	11-01 IN YOUR PRESENT JOB DO YOU WORK WITH SCHMITT TRIGGER CIRCUITS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11142	11-02 DO YOU TRACE DATA FLOW THROUGH SCHMITT TRIGGER SCHEMATIC DIAGRAMS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11143	11-03 DO YOU USE OR REFER TO SCHMITT TRIGGER LOGIC SYMBOLS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11144	11-01 IN YOUR PRESENT JOB DO YOU FABRICATE MULTICONDUCTOR CABLES	7	6	7	7	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11145	11-02 DO YOU FABRICATE COAXIAL CABLES	14	13	14	14	20	30	10	10	10	10	10	10	10	10	10	10	10	10	10	10						
11146	11-01 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS ON VISUAL READOUT SYSTEMS	13	14	15	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10						
11147	11-02 DO YOU PERFORM ANY TASKS ON NIXIE LIGHTS OR NIXIE LIGHT DECODER SYSTEMS	2	0	1	3	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10						
11148	11-03 DO YOU ANALYZE NIXIE LIGHT DECODER SYSTEMS USING BOOLEAN ALGEBRA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11149	11-01 DO YOU WORK WITH PHOTO TUBES IN YOUR PRESENT JOB	2	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11150	11-01 IN YOUR PRESENT JOB DO YOU WORK WITH CHOPPER CIRCUITS	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11151	11-02 DO YOU MEASURE EXCITATION FREQUENCIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11152	11-03 DO YOU MEASURE VOLTAGE-CURRENT PHASE RELATIONSHIPS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11153	11-04 DO YOU USE OR REFER TO EXCITATION FREQUENCIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11154	11-05 DO YOU USE OR REFER TO VOLTAGE-CURRENT PHASE RELATIONSHIPS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11155	11-06 DO YOU USE SERVOS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11156	11-07 DO YOU USE DETECTORS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11157	11-08 DO YOU USE ERROR SIGNAL DEVICES IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11158	11-09 DO YOU USE COMPARISON CIRCUITS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11159	11-01 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH INFRARED SYSTEMS	39	50	40	38	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30						
11160	11-02 DO YOU INSPECT INFRARED SYSTEMS	32	25	34	32	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20						
11161	11-03 DO YOU CLEAN INFRARED SYSTEMS	28	25	30	25	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20						
11162	11-04 DO YOU ADJUST OR CALIBRATE INFRARED SYSTEMS	19	19	21	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11163	11-05 DO YOU OPERATE INFRARED SYSTEMS	27	25	29	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11164	11-06 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF INFRARED SYSTEMS	10	6	10	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
11165	11-07 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF INFRARED SYSTEMS	14	0	13	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20						
11166	11-08 DO YOU TROUBLESHOOT DOWN TO INFRARED SYSTEM COMPONENT PARTS	5	0	6	4	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10						
11167	11-09 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF INFRARED SYSTEMS	15	6	14	21	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20						
11168	11-10 DO YOU REMOVE OR REPLACE INFRARED SYSTEM COMPONENT PARTS	4	0	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						

INFRARED

PHOTO SENSITIVE DEVICES

INPUT/OUTPUT DEVICES

CABLE FABRICATION

SCHMITT TRIGGERS

PHANTASTRONS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DT-TSK		SPL 001	SPL 002	SPL 003	SPL 004	SPL 005
T1169 T1-11	DO YOU USE OR REFER TO FAR REGION	1	0	1	1	0
T1170 T1-12	DO YOU USE OR REFER TO INTERMEDIATE REGION	1	0	1	1	0
T1171 T1-13	DO YOU USE OR REFER TO NEAR REGION	1	0	2	1	0
T1172 T1-14	DO YOU USE OR REFER TO MICRON	1	0	1	1	0
T1173 T1-15	DO YOU USE OR REFER TO GRAY BODIES	1	0	1	1	0
T1174 T1-16	DO YOU USE OR REFER TO BLACK BODIES	2	0	1	6	0
T1175 T1-17	DO YOU USE OR REFER TO ABSORPTION	2	6	1	3	0
T1176 T1-18	DO YOU USE OR REFER TO SCATTERING	1	6	1	1	0
T1177 T1-19	DO YOU USE OR REFER TO ABSOLUTE ZERO	0	0	1	0	0
T1178 T1-20	DO YOU PERFORM TASKS ON BLITZ	0	0	0	0	0
T1179 T1-21	DO YOU PERFORM TASKS ON TARGET BUTTONS	0	0	0	1	0
T1180 T1-22	DO YOU PERFORM TASKS ON REFLECTOR LENSES	0	0	0	1	0
T1181 T1-23	DO YOU PERFORM TASKS ON OCULAR LENSES	2	6	2	1	0
T1182 T1-24	DO YOU PERFORM TASKS ON CORRECTION LENSES	1	0	1	1	0
T1183 T1-25	DO YOU PERFORM TASKS ON FILTERS	1	0	1	1	10
T1184 T1-26	DO YOU PERFORM TASKS ON SPHERICAL MIRRORS	2	0	2	6	0
T1185 T1-27	DO YOU PERFORM TASKS ON PLANE MIRRORS	2	0	1	4	0
T1186 T2-01	DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH LASERS	27	31	29	23	30
T1187 T2-02	DO YOU INSPECT LASER SYSTEMS	24	25	26	21	20
T1188 T2-03	DO YOU CLEAN LASER SYSTEMS	19	25	22	11	10
T1189 T2-04	DO YOU OPERATE LASER SYSTEMS	18	6	21	11	20
T1190 T2-05	DO YOU OPERATE LASER SYSTEMS	17	6	21	10	20
T1191 T2-06	DO YOU TROUBLESHOOT WIRE CONNECTIONS OF LASER SYSTEMS	5	0	7	3	10
T1192 T2-07	DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF LASER SYSTEMS	14	6	13	14	30
T1193 T2-08	DO YOU TROUBLESHOOT TO COMPONENT PARTS OF LASER SYSTEMS	8	6	9	6	10
T1194 T2-09	DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF LASER SYSTEMS	13	13	12	13	30
T1195 T2-10	DO YOU REMOVE OR REPLACE COMPONENT PARTS OF LASER SYSTEMS	5	0	5	4	10
T1196 T2-11	DO YOU USE OR REFER TO ANGSTROMS (A)	0	0	1	0	0
T1197 T2-12	DO YOU USE OR REFER TO ELECTRON ENERGY LEVELS	0	0	1	0	0
T1198 T2-13	DO YOU USE OR REFER TO GROUND STATE	0	0	1	0	0
T1199 T2-14	DO YOU USE OR REFER TO EXCITED STATE	0	0	1	0	0
T1200 T2-15	DO YOU USE OR REFER TO PACKET OF RADIATION	0	0	1	0	0
T1201 T2-16	DO YOU USE OR REFER TO PHOTONS	0	0	1	0	0
T1202 T2-17	DO YOU USE OR REFER TO SPONTANEOUS EMISSION	0	0	1	0	0
T1203 T2-18	DO YOU USE OR REFER TO STIMULATED EMISSION	0	0	1	0	0
T1204 T2-19	DO YOU USE OR REFER TO CONFERENCE OR INCORPORATION	0	0	1	0	0
T1205 T2-20	DO YOU USE OR REFER TO INVERSION LEVEL	0	0	1	0	0
T1206 T2-21	DO YOU USE OR REFER TO MONOCHROMATIC	0	0	0	0	0
T1207 T2-22	DO YOU WORK WITH ACTIVE MATERIALS	0	0	0	0	0
T1208 T2-23	DO YOU WORK WITH PUMPING SOURCES	1	0	1	1	0
T1209 T2-24	DO YOU WORK WITH FULL SILVERED (100% REFLECTIVE) MIRRORS	0	0	0	0	0

LASERS

PCT MEMS PERFORM TASKS BY DAFSC GRPS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK	SPL					SPL					SPL				
	001	002	003	004	005	001	002	003	004	005	001	002	003	004	005
U1249 U1-16 DO YOU PERFORM TASKS ON INPUT DEVICES	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
U1250 U1-17 DO YOU PERFORM TASKS ON STORAGE DEVICES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
U1251 U1-18 DO YOU PERFORM TASKS ON ARITHMETIC SECTIONS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
U1252 U1-19 DO YOU PERFORM TASKS ON CONTROL SECTIONS	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
U1253 U1-20 DO YOU PERFORM TASKS ON OUTPUT DEVICES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
U1254 U1-21 DO YOU PERFORM TASKS ON POWER SUPPLIES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
U1255 U2-01 DO YOU USE DECIBELS TO EXPRESS AMPLIFICATION AND ATTENUATION	4	0	0	2	10	10	10	10	10	10					
U1256 U2-02 DO YOU USE LOGARITHMS TO COMPUTE OUTPUT POWER IN DECIBELS	0	0	0	0	1	0									
U1257 U2-03 DO YOU USE LOGARITHMS TO COMPUTE ATTENUATION IN DECIBELS	0	0	0	0	1	0									
U1258 U2-04 DUMMY TASK TO IDENTIFY INCUMBENTS WHO PERFORMED NO TASKS	5	6	3	10	10	10									

DB AND POWER RATIOS

TABLE OF PERCENT MEMBERS PERFORMING TASKS AND DUTIES BY AFMS GROUPS
IN THE DEXIL/93 CAREER FIELD.

REPORTS ON THE FOLLOWING GROUPS WERE REQUESTED

GROUP IDENTITY =	SP1006	ALL OS AMN WITH 6-24 MOS IN CAR FLD	CONTAINING	56 MEMBERS.
GROUP IDENTITY =	SP1007	ALL OS AMN WITH 25-48 MOS IN CAR FLD	CONTAINING	110 MEMBERS.
GROUP IDENTITY =	SP1008	ALL OS AMN WITH 1-48 MOS IN CAR FLD	CONTAINING	172 MEMBERS.
GROUP IDENTITY =	SP1009	ALL OS AMN WITH 49-96 MOS IN CAR FLD	CONTAINING	44 MEMBERS.
GROUP IDENTITY =	SP1010	ALL OS AMN WITH 97-144 MOS IN CAR FLD	CONTAINING	28 MEMBERS.
GROUP IDENTITY =	SP1011	ALL OS AMN WITH 145 OR MORE MOS IN CAR FLD	CONTAINING	35 MEMBERS.

DUTY GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		SPL	SPL	SPL	SPL	SPL	SPL	SPL	SPL
		006	007	008	009	010	011		
A	MATHEMATICS, DIRECT CURRENT, VOLTAGE, AND RESISTANCE	91	90	90	86	82	80		
B	MULTIMETER USES, ALTERNATING CURRENT, INDUCTORS, AND INDUCTIVE CAPACITORS, CAPACITIVE REACTANCE, TRANSFORMERS, AND MAGNETISM	88	92	90	82	79	74		
C	AC CIRCUITS, SERIES AND PARALLEL RESONANCE (TIME CONSTANTS), AND FILTERS	48	37	41	36	36	43		
D	Coupling, Soldering, and Relays	5	9	8	9	14	20		
E	MICROPHONES, SPEAKERS, AND OSCILLOSCOPES	30	40	35	43	46	51		
F	SEMICONDUCTOR DIODES, TRANSISTORS, AND TRANSISTOR AMPLIFIERS	52	62	58	61	46	46		
G	SOLID STATE SPECIAL PURPOSE DEVICES, POWER SUPPLIES, AND OSCILLATORS	7	15	12	18	29	37		
H	MULTIVIBRATORS, LIMITERS, CLAMPERS, AND ELECTRON TUBES	55	49	51	59	50	49		
I	ELECTRON TUBE AMPLIFIERS AND CIRCUITS, SPECIAL PURPOSE ELECTRON TUBES, METEOROLOGICAL MODULATION, AM SYSTEMS, FM SYSTEMS, AND NUMBERING SYSTEMS	0	5	3	5	14	17		
J	LOGIC FUNCTIONS, BOOLEAN EQUATIONS, AND COUNTERS	14	10	11	9	7	9		
K	TIMING CIRCUITS, USE OF SIGNAL GENERATORS, MOTORS, AND GENERATORS	4	6	5	0	7	11		
L	METER MOVEMENTS, SATURABLE REACTORS, MAGNETIC AMPLIFIERS, AND WAVESHAPING CIRCUITS	21	29	26	20	29	14		
M	SINGLE SIDEBAND SYSTEMS, PULSE MODULATION SYSTEMS, AND ANTENNAS	48	59	55	52	54	49		
N	TRANSMISSION LINES, WAVEGUIDES AND CAVITY RESONATORS, AND MICROWAVE AMPLIFIERS AND OSCILLATORS	55	67	64	43	54	54		
O	REGISTERS, STORAGE DEVICES, AND DIGITAL TO ANALOG CONVERTERS	43	38	40	20	11	20		
P	PHANTASTONS, SCHMITT TRIGGERS, AND CABLE FABRICATION	27	34	30	16	29	14		
Q	INPUT/OUTPUT DEVICES, PHOTO SENSITIVE DEVICES, AND SYNCHRONOUS VIBRATIONS	5	11	9	5	4	3		
R	INFRARED, LASERS, AND DISPLAY TUBES	11	17	15	14	21	23		
S	PROGRAMMING, DB AND POWER RATIOS	18	15	16	14	7	6		
T		55	53	53	39	43	51		
U		5	7	7	14	18	17		

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DT-TSK

SPL SPL SPL SPL SPL SPL
006 007 008 009 010 011

1	AI-01 DO YOU PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO	54	49	49	45	43	14
2	AI-02 DO YOU USE PUBLICATIONS, SUCH AS A TECHNICAL ORDERS OR MAINTENANCE MANUALS, IN WHICH IT IS NECESSARY FOR YOU	27	25	25	32	14	17
3	AI-03 DO YOU REARRANGE AND SOLVE FORMULAS OR EQUATIONS.	11	13	12	16	4	20
4	AI-04 DO YOU CALCULATE THE SQUARE ROOT OF A QUANTITY.	0	1	1	2	0	9
5	AI-05 DO YOU SOLVE FOR UNKNOWN QUANTITIES.	13	14	13	5	4	17
6	AI-06 DO YOU CONVERT NUMBERS TO LOGARITHMS.	0	0	0	0	0	0
7	AI-07 DO YOU USE LOGARITHM TABLES IN ANY TYPE OF CALCULATIONS.	0	0	0	0	0	3
8	AI-08 DO YOU SOLVE QUADRATIC EQUATIONS.	0	1	1	0	0	3
9	AI-09 DO YOU USE THE NATURAL SYSTEM OF LOGARITHMS.	0	0	0	0	0	0
10	AI-10 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES.	0	0	0	0	0	6
11	AI-11 DO YOU WORK WITH TRIGONOMETRIC FUNCTIONS SUCH AS SINE, COSINE, OR TANGENT.	0	0	0	0	0	0
12	AI-12 DO YOU DETERMINE AREAS OF PLANE FIGURES.	0	1	1	0	0	3
13	AI-13 DO YOU SOLVE OR USE SIMULTANEOUS EQUATIONS.	4	3	3	0	4	6
14	AI-14 DO YOU SOLVE OR USE PROPORTIONS.	2	5	4	9	4	9
15	AI-20 DO YOU USE THE TERM VOLTAGE OR VOLT (V).	80	83	81	80	79	77
16	AI-20 DO YOU USE THE TERM ELECTROMOTIVE FORCE (EMF).	18	13	15	20	14	37
17	AI-20 DO YOU USE THE TERM OHM.	77	84	81	77	82	77
18	AI-20 DO YOU USE THE TERM ION.	0	2	1	5	7	14
19	AI-20 DO YOU USE THE TERM LIFE.	0	3	2	5	0	9
20	AI-20 DO YOU USE THE TERM AMPERE.	59	62	59	61	64	69
21	AI-20 DO YOU USE THE TERM NEUTRON.	0	3	2	7	4	11
22	AI-20 DO YOU USE THE TERM COULOMB.	2	3	2	2	4	9
23	AI-20 DO YOU USE THE TERM PROTON.	0	2	1	9	4	11
24	AI-01 DO YOU WORK WITH RESISTORS IN YOUR PRESENT JOB.	41	43	41	45	39	40
25	AI-02 DO YOU INSPECT RESISTORS.	21	21	20	32	29	31
26	AI-03 DO YOU CLEAN RESISTORS.	11	7	8	16	14	20
27	AI-04 DO YOU ADJUST RESISTORS.	32	40	37	41	32	40
28	AI-05 DO YOU CHECK OHMIC VALUE OR RESISTORS.	32	25	27	32	43	34
29	AI-06 DO YOU REMOVE OR REPLACE RESISTORS.	16	14	14	20	21	29
30	AI-07 DO YOU USE OR REFER TO TEMPERATURE COEFFICIENTS FOR RESISTORS ON ANY TASKS YOU PERFORM.	5	3	3	0	4	6
31	AI-08 DO YOU USE OR REFER TO RESISTOR SYMBOLS SUCH AS FIXED RESISTOR SYMBOLS OR TAPPED RESISTOR SYMBOLS.	21	19	19	30	32	51
32	AI-09 DO YOU IDENTIFY OR CLASSIFY THE RESISTORS YOU WORK WITH AS CARBON, FIXED WIRE, SLIDE TAP, RHEOSTAT, OR	20	21	20	25	32	43
33	AI-10 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE OHMIC VALUE OF RESISTANCE.	23	16	18	23	25	37

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
A 34 A3-11 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE TOLERANCE.	18	11	13	18	25	31
A 35 A3-12 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE FAILURE RATE.	7	4	5	5	4	6
A 36 A3-13 DO YOU MAKE DECISIONS IN WHICH YOU MUST DETERMINE HOW TWO OR MORE BATTERIES MUST BE CONNECTED TOGETHER TO REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES	5	6	6	0	4	14
A 37 A3-14 DO YOU USE OR REFER TO THE SCHEMATIC SYMBOLS WHICH REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES	29	27	27	32	39	51
A 38 A3-15 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES RESISTIVE CIRCUITS.	14	10	11	11	7	17
A 39 A3-16 DO YOU CALCULATE TOTAL CURRENT FOR SERIES RESISTIVE CIRCUITS.	7	8	8	11	7	17
A 40 A3-17 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES RESISTIVE CIRCUITS.	9	7	8	11	7	17
A 41 A3-18 DO YOU CALCULATE POWER DISSIPATION FOR SERIES RESISTIVE CIRCUITS.	5	5	5	5	0	11
A 42 A3-19 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES PARALLEL RESISTIVE CIRCUITS.	11	9	9	9	7	14
A 43 A3-20 DO YOU CALCULATE TOTAL CURRENT FOR SERIES PARALLEL RESISTIVE CIRCUITS.	5	7	6	9	7	14
A 44 A3-21 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES PARALLEL RESISTIVE CIRCUITS.	5	7	6	9	7	14
A 45 A3-22 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR SERIES PARALLEL RESISTIVE CIRCUITS.	7	5	6	9	7	11
A 46 A3-23 DO YOU CALCULATE POWER DISSIPATION FOR SERIES PARALLEL RESISTIVE CIRCUITS.	5	4	4	2	0	11
A 47 A3-24 DO YOU CALCULATE TOTAL RESISTANCE FOR PARALLEL RESISTIVE CIRCUITS.	9	6	7	9	7	14
A 48 A3-25 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RESISTIVE CIRCUITS.	5	6	6	9	7	14
A 49 A3-26 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR PARALLEL RESISTIVE CIRCUITS.	5	9	8	9	7	14
A 50 A3-27 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR PARALLEL RESISTIVE CIRCUITS.	7	5	6	9	7	11
A 51 A3-28 DO YOU CALCULATE POWER DISSIPATION FOR PARALLEL RESISTIVE CIRCUITS.	5	3	3	2	0	11
B 52 B1-01 DO YOU MEASURE RESISTANCE.	80	83	81	66	71	51
B 53 B1-02 DO YOU REPAIR AMMETERS.	2	4	3	7	4	0
B 54 B1-03 DO YOU MEASURE VOLTAGE.	75	85	80	70	75	60
B 55 B1-04 DO YOU REPAIR VOLTMETERS.	2	2	2	5	0	0
B 56 B1-05 DO YOU REPAIR AMMETERS.	2	2	2	5	0	0
B 57 B1-06 DO YOU MEASURE CURRENT.	44	52	48	36	57	31
B 58 B1-07 DO YOU USE MULTIMETERS.	80	85	83	73	79	60
B 59 B1-08 DO YOU DIRECTLY USE A QUANTITY OF CHARGE CALLED A COULOMB.	0	1	1	2	0	0
B 60 B1-09 DO YOU READ SCHEMATICS.	55	51	51	59	64	54

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DT-15A

		SPL	SPL	SPL	SPL	SPL	SPL
		006	007	008	009	010	011
61	82-01 DO YOU USE OR REFER TO THE TERM EFFECTIVE VOLTAGE (RMS)?	25	38	33	41	50	49
62	82-02 DO YOU USE OR REFER TO THE TERM PEAK TO PEAK VOLTAGE?	34	48	42	43	46	51
63	82-03 DO YOU USE OR REFER TO THE TERM AVERAGE VOLTAGE (DC)?	34	39	37	48	43	40
64	82-04 DO YOU USE OR REFER TO THE TERM WAVE LENGTH?	23	37	32	32	29	31
65	82-05 DO YOU USE OR REFER TO THE TERM FREQUENCY?	48	72	63	64	64	66
66	82-06 DO YOU USE OR REFER TO THE TERM INSTANTANEOUS VALUE?	5	9	8	11	4	29
67	83-01 DO YOU WORK WITH INDUCTORS OR CIRCUITS CONTAINING INDUCTORS, CHOKES, OR CHOKER COILS IN YOUR PRESENT JOB?	9	10	9	14	14	14
68	83-02 DO YOU INSPECT INDUCTORS?	2	6	5	11	4	14
69	83-03 DO YOU CLEAN INDUCTORS?	0	5	3	9	0	3
70	83-04 DO YOU ADJUST INDUCTORS?	0	5	3	7	0	14
71	83-05 DO YOU REMOVE OR REPLACE INDUCTORS?	0	5	4	7	4	9
72	83-06 DO YOU USE OR REFER TO INDUCTANCE?	2	5	3	9	4	14
73	83-07 DO YOU USE OR REFER TO HENRIES?	4	3	3	9	4	11
74	83-08 DO YOU USE OR REFER TO INDUCTIVE REACTANCE?	2	4	3	9	4	9
75	83-09 DO YOU USE OR REFER TO COPPER LOSS IN INDUCTORS?	0	1	1	0	0	0
76	83-10 DO YOU USE OR REFER TO HYSTERESIS LOSS IN INDUCTORS?	0	2	1	0	4	3
77	83-11 DO YOU USE OR REFER TO EDDY CURRENT LOSS IN INDUCTORS?	0	1	1	0	4	0
78	83-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTANCE IS PROPORTIONAL TO THE SQUARE OF THE NUMBER OF TURNS?	0	2	1	0	0	3
79	82-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE CROSS SECTIONAL AREA OF THE COIL?	0	0	0	0	0	0
80	82-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS INVERSELY PROPORTIONAL TO ITS LENGTH?	0	1	1	0	0	0
81	82-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE NUMBER OF TURNS?	0	0	0	0	0	0
82	82-16 DO YOU CALCULATE INDUCTANCE FOR PARTICULAR INDUCTORS USING FORMULAS?	0	1	1	0	0	0
83	83-07 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTANCE IN SERIES?	2	1	1	0	0	3
84	83-18 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS IN PARALLEL?	2	1	1	0	0	3
85	83-19 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS IN SERIES-PARALLEL CIRCUITS?	2	1	1	0	0	3
86	83-20 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LAGS VOLTAGE IN AC INDUCTOR CIRCUITS?	0	0	0	2	0	6
87	83-21 DO YOU CALCULATE INDUCTIVE REACTANCE?	2	1	1	0	4	3
88	83-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO FREQUENCY?	0	0	0	0	4	6
89	83-23 DO YOU WORK WITH POWER INDUCTORS?	2	4	3	0	7	6
90	83-24 DO YOU WORK WITH AUDIO FREQUENCY INDUCTORS?	4	2	2	0	7	9
91	83-25 DO YOU WORK WITH RADIO FREQUENCY INDUCTORS?	4	2	2	2	4	9

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

CV-TSK

	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
C 92 CI-01 DO YOU WORK WITH CAPACITORS OR CIRCUITS CONTAINING CAPACITORS IN YOUR PRESENT JOB.	27	19	21	27	18	29
C 93 CI-02 DO YOU INSPECT CAPACITORS.	9	9	9	14	11	29
C 94 CI-03 DO YOU CLEAN CAPACITORS.	5	3	3	9	7	11
C 95 CI-04 DO YOU ADJUST CAPACITORS.	4	5	4	2	0	11
C 96 CI-05 DO YOU TEST CAPACITORS.	2	4	3	7	4	11
C 97 CI-06 DO YOU DISCHARGE CAPACITORS.	16	7	10	11	11	17
C 98 CI-07 DO YOU REMOVE OR REPLACE CAPACITORS.	5	6	6	7	4	23
C 99 CI-08 DO YOU USE OR REFER TO DISTRIBUTED CAPACITANCE.	0	1	1	0	0	0
C 100 CI-09 DO YOU USE OR REFER TO ORBITAL STRESS OF ELECTRONS IN A DIELECTRIC.	0	1	1	0	0	0
C 101 CI-10 DO YOU USE OR REFER TO FARADS, MICROFARADS, OR PICOFARADS.	9	5	6	11	11	23
C 102 CI-11 DO YOU USE OR REFER TO CAPACITANCE.	14	5	8	14	11	23
C 103 CI-12 DO YOU USE OR REFER TO DIELECTRIC CONSTANT	0	0	0	0	0	0
C 104 CI-13 DO YOU USE OR REFER TO WORKING VOLTAGE RATING OF CAPACITORS	4	5	4	7	4	17
C 105 CI-14 DO YOU USE OR REFER TO CAPACITIVE REACTANCE	4	0	1	0	4	9
C 106 CI-15 DO YOU USE OR REFER TO CAPACITOR COLOR CODES	2	2	2	2	0	14
C 107 CI-16 DO YOU WORK WITH CAPACITORS IN DC CIRCUITS	20	13	15	23	14	31
C 108 CI-17 DO YOU WORK WITH CAPACITORS IN AC CIRCUITS	21	14	16	20	18	29
C 109 CI-18 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC	14	13	13	11	11	26
C 110 CI-19 DO YOU WORK WITH CAPACITORS IN DON'T REMEMBER WHICH CIRCUITS	9	7	8	7	11	6
C 111 CI-20 DO YOU CALCULATE CAPACITANCE FOR PARTICULAR CAPACITORS USING FORMULAS	0	0	0	0	0	0
C 112 CI-21 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS DIRECTLY PROPORTIONAL TO THE CAPACITANCE OF A CAPACITOR IS INVERSELY PROPORTIONAL TO CAPACITANCE OF A CAPACITOR IS INVERSELY PROPORTIONAL TO IN SERIES	0	0	0	0	0	0
C 113 CI-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS INVERSELY PROPORTIONAL TO IN SERIES	0	0	0	0	0	0
C 114 CI-23 DO YOU CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN PARALLEL	0	0	0	0	0	9
C 115 CI-24 DO YOU CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN PARALLEL	0	0	0	0	0	9
C 116 CI-25 DO YOU CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN SERIES-PARALLEL CIRCUITS	0	0	0	0	0	6
C 117 CI-26 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT DOES NOT FLOW THROUGH CAPACITORS, IT ONLY APPEARS TO DO SO	0	1	1	2	0	9
C 118 CI-27 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LEADS VOLTAGE IN AC CAPACITOR CIRCUITS	0	0	0	0	2	0
C 119 CI-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO	0	0	0	0	2	4
C 120 CI-29 DO YOU CALCULATE CAPACITIVE REACTANCE	0	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

07-15K

	SPL	SPL	SPL	SPL	SPL	SPL
	006	007	008	009	010	011
C 121 C1-30 DO YOU WORK WITH ROTOR-STATION (VARIABLE) CAPACITORS	7	4	5	9	7	11
C 122 C1-31 DO YOU WORK WITH COMPRESSION (TRIMMER) CAPACITORS	4	3	3	2	4	9
C 123 C1-32 DO YOU WORK WITH ELECTROLYTIC (FIXED) CAPACITORS	7	7	7	9	11	26
C 124 C1-33 DO YOU WORK WITH PAPER (FIXED) CAPACITORS	9	6	7	7	11	23
C 125 C1-34 DO YOU WORK WITH MICA (FIXED) CAPACITORS	7	7	7	9	11	26
C 126 C1-35 DO YOU WORK WITH CERAMIC (FIXED) CAPACITORS	7	6	6	9	11	29
C 127 C1-36 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF CAPACITORS	11	11	10	14	7	3
C 128 C2-01 DO YOU WORK WITH TRANSFORMERS IN YOUR PRESENT JOB	19	15	16	16	29	34
C 129 C2-02 DO YOU INSPECT TRANSFORMERS	7	8	8	14	21	29
C 130 C2-03 DO YOU CLEAN TRANSFORMERS	2	5	4	7	4	11
C 131 C2-04 DO YOU ADJUST TRANSFORMERS	5	5	5	5	4	9
C 132 C2-05 DO YOU TROUBLESHOOT TRANSFORMERS	4	6	5	16	14	23
C 133 C2-06 DO YOU REMOVE OR REPLACE COMPLETE TRANSFORMERS	7	8	8	14	7	31
C 134 C2-07 DO YOU REMOVE OR REPLACE TRANSFORMER PARTS, SUCH AS THE PRIMARY WINDING	0	1	1	0	0	0
C 135 C2-08 DO YOU MAKE A DISTINCTION BETWEEN MUTUAL INDUCTANCE AND MUTUAL INDUCTANCE (M)	0	1	1	0	0	0
C 136 C2-09 DO YOU USE THE SYMBOL FOR MUTUAL INDUCTANCE, M	0	0	0	0	0	3
C 137 C2-10 DO YOU REFER TO OR USE THE COEFFICIENT OF COUPLING WHEN WORKING WITH TRANSFORMERS	0	0	0	0	4	0
C 138 C2-11 DO YOU CALCULATE TURNS RATIOS FOR TRANSFORMERS USING CURRENT OR VOLTAGE RATIOS	0	1	1	0	0	3
C 139 C2-12 DO YOU REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH TRANSFORMERS	0	0	0	0	0	0
C 140 C2-13 DO YOU CALCULATE IMPEDANCE INTERACTIONS FOR TRANSFORMERS	0	0	0	0	0	0
C 141 C2-14 DO YOU WORK WITH AUTOTRANSFORMERS	4	0	1	2	4	6
C 142 C2-15 DO YOU WORK WITH POWER TRANSFORMERS	11	13	12	14	14	34
C 143 C2-16 DO YOU WORK WITH AUDIO TRANSFORMERS	2	1	1	2	4	14
C 144 C2-17 DO YOU WORK WITH RADIO FREQUENCY TRANSFORMERS	4	3	3	2	0	11
C 145 C2-18 DO YOU WORK WITH DON'T REMEMBER WHAT TYPE OF TRANSFORMERS	5	5	5	5	7	3
C 146 C2-19 DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE	2	5	4	14	11	26
C 147 C2-20 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING RESISTANCE	2	5	4	14	7	23
C 148 C2-21 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING OUTPUT VOLTAGES	0	4	2	14	11	23
C 149 C2-22 DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN	2	1	1	2	4	3
C 150 C2-23 DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN	2	3	2	2	4	6
C 151 C2-24 DO YOU REFER TO BASIC TRANSFORMER SCHEMATIC SYMBOLS FOR TRANSFORMERS	11	9	9	16	18	31

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
C 152 C2-25 DO YOU REFER TO MULTIPLE SECONDARY-WINDINGS SCHEMATIC SYMBOLS FOR TRANSFORMERS	5	5	5	9	11	29
C 153 C2-26 DO YOU REFER TO MULTIPLE TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS	5	5	5	11	18	26
C 154 C2-27 DO YOU REFER TO CENTER TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS	7	6	6	11	18	34
C 155 C2-28 DO YOU REFER TO AIR CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS	4	5	4	7	7	20
C 156 C2-29 DO YOU REFER TO IRON CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS	5	4	4	9	7	26
C 157 C2-30 DO YOU REFER TO COMBINATIONS OF THE ABOVE SCHEMATIC SYMBOLS FOR TRANSFORMERS	4	3	3	9	11	26
C 158 C2-31 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING	0	3	2	0	7	6
C 159 C2-32 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN TRANSFORMERS YOU WORK WITH	0	1	1	2	4	9
C 160 C2-33 DO YOU REFER TO OR USE THE GENERAL RULE THAT THE TURNS RATIO OF A TRANSFORMER IS EQUAL TO THE VOLTAGE RATIO	0	1	1	2	7	3
C 161 C2-34 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS FOR TRANSFORMERS	0	3	2	5	11	14
C 162 C2-35 DO YOU CALCULATE VOLTAGE RATIOS FOR TRANSFORMERS USING TURNS RATIOS	0	0	0	2	4	3
C 163 C2-36 DO YOU CALCULATE CURRENT RATIOS FOR TRANSFORMERS USING TURNS RATIOS	0	0	0	2	4	3
C 164 C2-37 DOES YOUR JOB INVOLVE ANY TASKS DEALING WITH THREE PHASE TRANSFORMERS	9	5	6	5	11	14
C 165 C2-38 DO YOU INSPECT THREE PHASE TRANSFORMERS	4	5	4	5	14	14
C 166 C2-39 DO YOU CLEAN OR LUBRICATE THREE PHASE TRANSFORMERS	2	1	1	0	4	3
C 167 C2-40 DO YOU ADJUST THREE PHASE TRANSFORMERS	2	4	3	0	11	6
C 168 C2-41 DO YOU TROUBLESHOOT THREE PHASE TRANSFORMERS	0	2	1	2	7	9
C 169 C2-42 DO YOU REMOVE OR REPLACE COMPLETE THREE PHASE TRANSFORMERS	0	4	2	2	7	6
C 170 C2-43 DO YOU REMOVE OR REPLACE THREE PHASE TRANSFORMER PARTS SUCH AS WINDINGS	0	0	0	0	4	0
C 171 C3-01 DO YOU USE OR REFER TO PERMANENT MAGNETS	5	6	6	7	18	14
C 172 C3-02 DO YOU USE OR REFER TO TEMPORARY MAGNETS	4	5	4	2	7	14
C 173 C3-03 DO YOU USE OR REFER TO RETENTIVITY OF MAGNETIC MATERIALS	0	1	1	0	0	6
C 174 C3-04 DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC MATERIALS	0	1	1	0	0	6
C 175 C3-05 DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC MATERIALS	0	1	1	2	0	3
C 176 C3-06 DO YOU USE OR REFER TO RESIDUAL MAGNETISM	2	1	1	0	0	6
C 177 C3-07 DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR FLUX	2	3	2	11	7	9
C 178 C3-08 DO YOU USE OR REFER TO WEHNER'S THEORY OF MAGNETISM	0	0	0	0	0	0

1.5A GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DT-15A

	SPL	SPL	SPL	SPL	SPL	SPL	SPL
	006	007	008	009	010	011	
C 179 C3-09 DO YOU USE OR REFER TO DOMAIN THEORY OF MAGNETISM	0	0	0	0	0	0	0
C 180 C3-10 DO YOU USE OR REFER TO MAGNETIC INDUCTION	4	12	2	5	11	11	6
C 181 C3-11 DO YOU USE OR REFER TO FLUX DENSITY	0	1	1	0	4	4	6
C 182 C3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT FOR	13	14	13	9	18	29	
MAGNETIC POLES, LIKE POLES REPEL AND UNLIKE POLES ATTRACT	5	4	5	0	4	6	
C 183 C3-13 DO YOU USE THE LEFT HAND THUMB RULE TO FIND THE							
DIRECTION OF MAGNETIC FIELDS ABOUT STRAIGHT WIRES	0	2	1	0	4	6	
C 184 C3-14 DO YOU USE THE LEFT HAND THUMB RULE TO FIND THE NORTH							
POLE OF A CURRENT CARRYING COIL	4	5	4	2	7	9	
C 185 D1-01 DO YOU WORK WITH RCL CH, RCL CIRCUITS IN YOUR							
PRESENT JOB	0	0	0	0	0	0	3
C 186 D1-02 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL							
CIRCUITS	0	0	0	0	0	0	0
C 187 D1-03 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN							
WORKING WITH RCL CIRCUITS	0	0	0	0	0	0	0
C 188 D1-04 DO YOU USE OR REFER TO SINE WHEN WORKING WITH RCL							
CIRCUITS	0	0	0	0	0	0	0
C 189 D1-05 DO YOU USE OR REFER TO COSINE WHEN WORKING WITH RCL							
CIRCUITS	0	0	0	0	0	0	0
C 190 D1-06 DO YOU USE OR REFER TO TANGENT WHEN WORKING WITH RCL							
CIRCUITS	0	0	0	0	0	0	0
C 191 D1-07 DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL							
CIRCUITS	2	0	1	0	0	9	
C 192 D1-08 DO YOU USE OR REFER TO TRUE POWER (PT) WHEN WORKING							
WITH RCL CIRCUITS	0	0	0	0	0	3	
C 193 D1-09 DO YOU USE OR REFER TO MAXIMUM POWER (PM) WHEN							
WORKING WITH RCL CIRCUITS	0	1	1	0	0	6	
C 194 D1-10 DO YOU USE OR REFER TO AVERAGE POWER (PAVE) WHEN							
WORKING WITH RCL CIRCUITS	0	0	0	0	0	9	
C 195 D1-11 DO YOU USE OR REFER TO APPARENT POWER (PA) WHEN							
WORKING WITH RCL CIRCUITS	0	1	1	0	0	3	
C 196 D1-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING							
WITH RCL CIRCUITS	0	0	0	0	0	0	0
C 197 D1-13 DO YOU USE OR REFER TO RESONANT CIRCUITS WHEN							
WORKING WITH RCL CIRCUITS	0	2	1	0	7	3	
C 198 D1-14 DO YOU USE OR REFER TO BANDWIDTH WHEN WORKING WITH							
RCL CIRCUITS	2	2	2	0	4	6	
C 199 D1-15 DO YOU USE OR REFER TO SELECTIVITY WHEN WORKING WITH							
RCL CIRCUITS	2	2	2	0	4	6	
C 200 D1-16 DO YOU USE OR REFER TO RESONANT FREQUENCY WHEN							
WORKING WITH RCL CIRCUITS	0	3	2	0	7	6	
C 201 D1-17 DO YOU USE OR REFER TO HALF POWER POINTS WHEN							
WORKING WITH RCL CIRCUITS	0	0	0	0	4	0	
C 202 D1-18 DO YOU USE OR REFER TO BANDPASS REGION WHEN WORKING							
WITH RCL CIRCUITS	0	1	1	0	4	6	
C 203 D1-19 DO YOU USE OR REFER TO CIRCUIT 3 WHEN WORKING WITH							
RCL CIRCUITS	0	0	0	0	4	3	

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
0 204 DI-20 DO YOU USE OR REFER TO TASK CIRCUITS WHEN WORKING WITH RCL CIRCUITS	2	2	2	0	7	6
0 205 DI-21 DO YOU DETERMINE VALUES OF TRIGONOMETRIC FUNCTIONS USING FORMULAS	0	0	0	0	0	0
0 206 DI-22 DO YOU DRAW VOLTAGE, CURRENT, OR IMPEDANCE VECTOR DIAGRAMS FOR CIRCUITS	0	1	1	0	0	0
0 207 DI-23 DO YOU CALCULATE TOTAL IMPEDANCE FOR CAPACITIVE CIRCUITS	0	2	1	0	0	3
0 208 DI-24 DO YOU CALCULATE PHASE ANGLES BETWEEN IMPEDANCE AND RESISTANCE IN CAPACITIVE CIRCUITS	0	0	0	0	0	0
0 209 DI-25 DO YOU CALCULATE TOTAL IMPEDANCE FOR SERIES RCL CIRCUITS	0	2	1	0	0	3
0 210 DI-26 DO YOU CALCULATE IMPEDANCE ANGLES FOR SERIES RCL CIRCUITS	0	1	1	0	0	0
0 211 DI-27 DO YOU CALCULATE APPARENT POWER (PA) FOR SERIES RCL CIRCUITS	0	2	1	0	0	3
0 212 DI-28 DO YOU CALCULATE TRUE POWER (PT) FOR SERIES RCL CIRCUITS	0	1	1	0	0	3
0 213 DI-29 DO YOU CALCULATE POWER FACTORS (PF) FOR SERIES RCL CIRCUITS	0	1	1	0	0	0
0 214 DI-30 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RCL CIRCUITS	0	1	1	0	0	6
0 215 DI-31 DO YOU CALCULATE IMPEDANCE ANGLES FOR PARALLEL RCL CIRCUITS	0	0	0	0	0	0
0 216 DI-32 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING THE ASSUMED VOLTAGE METHOD	0	0	0	0	0	0
0 217 DI-33 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING OHM'S LAW	0	2	1	0	0	6
0 218 DI-34 DO YOU CHECK CAPACITORS USING OHMMETERS	0	3	2	2	4	3
0 219 DI-35 DO YOU CHECK CAPACITORS USING SUBSTITUTION	0	2	1	5	0	9
0 220 DI-36 DO YOU CHECK INDUCTORS USING OHMMETERS	0	3	2	0	0	3
0 221 DI-37 DO YOU CHECK INDUCTORS USING SUBSTITUTION	0	1	1	2	0	6
0 222 DI-38 DO YOU USE OR REFER TO THE GENERAL RULE THAT $\theta = 0$, $PF = 1$, AND $PA = PT$ FOR RESONANT CIRCUITS	0	0	0	0	0	0
0 223 DI-39 DO YOU CALCULATE RESONANT FREQUENCIES FOR RCL CIRCUITS	0	1	1	0	0	0
0 224 DI-40 DO YOU USE OR REFER TO THE GENERAL RULE THAT IMPEDANCE IS MINIMUM AND CURRENT MAXIMUM AT THE RESONANT	0	2	1	0	4	3
0 225 DI-41 DO YOU USE OR REFER TO THE GENERAL RULE THAT LINE CURRENT IS MINIMUM AND IMPEDANCE MAXIMUM AT RESONANT	0	2	1	0	4	0
0 226 DI-42 DO YOU USE OR REFER TO THE GENERAL RULE THAT HALF POWER POINTS ARE AT 70.7 PERCENT OF THE PEAK CURRENT VALUE	0	1	1	0	4	3
0 227 DI-43 DO YOU USE OR REFER TO THE GENERAL RULE THAT REACTANCE IS INVERSELY PROPORTIONAL TO Q	0	1	1	0	4	0
0 228 DI-44 DO YOU DETERMINE HOW CHANGES IN FREQUENCY, RESISTANCE, CAPACITANCE, OR INDUCTANCE WILL AFFECT CURRENT OR PHASE	0	0	0	0	0	0

DI-TSK

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

01-19A

	SPL	SPL	SPL	SPL	SPL	SPL
	006	007	008	009	010	011
0 429 02-01 IN YOUR PRESENT JOB, DO YOU WORK WITH, USE, OR REFER TO SERIES OR PARALLEL RESONANT CIRCUITS OR TIME CONSTANTS	2	2	2	2	7	9
0 430 02-02 DO YOU WORK WITH, USE, OR REFER TO TIME CONSTANTS	2	1	1	0	7	11
0 431 02-03 DO YOU WORK WITH, USE, OR REFER TO AVAILABLE VOLTAGE	2	1	1	0	0	6
0 432 03-04 DO YOU WORK WITH, USE, OR REFER TO TRANSIENT INTERVALS	0	1	1	0	0	3
0 433 02-05 DO YOU USE OR REFER TO THE GENERAL RULE THAT A CAPACITOR IS FULLY CHARGED (OR DISCHARGED) AFTER FIVE (5) TIME CONSTANTS	0	0	0	0	4	11
0 434 02-06 DO YOU USE OR REFER TO UNIVERSAL TIME CONSTANT CHARTS	0	0	0	0	4	3
0 435 02-07 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CIRCUIT CURRENT OR COMPONENT VOLTAGES AFTER A SPECIFIC TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO	0	0	0	0	0	3
0 436 02-08 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO	0	0	0	0	0	3
0 437 02-09 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND	0	0	0	0	0	3
0 438 02-10 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT IN LR CIRCUITS REACHES ITS MINIMUM VALUE (OR ZERO) AFTER	0	0	0	0	0	9
0 439 03-01 DO YOU WORK WITH CIRCUITS USED AS FILTERS IN YOUR PRESENT JOB	4	3	3	5	11	9
0 440 03-02 DO YOU INSPECT FILTER CIRCUITS	2	3	2	5	7	6
0 441 03-03 DO YOU CLEAN FILTER CIRCUITS	2	2	2	5	4	3
0 442 03-04 DO YOU ALIGN OR ADJUST FILTER CIRCUITS	0	2	1	2	4	6
0 443 03-05 DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT LEVEL	0	2	1	2	0	9
0 444 03-06 DO YOU TROUBLESHOOT TO COMPONENT PARTS	0	3	2	2	4	6
0 445 03-07 DO YOU REMOVE OR REPLACE THE COMPLETE FILTER CIRCUIT	0	3	2	7	7	9
0 446 03-08 DO YOU REMOVE OR REPLACE FILTER CIRCUIT COMPONENT PARTS	0	3	2	2	4	6
0 447 03-09 DO YOU WORK WITH LOW PASS FILTERS	0	1	1	0	0	6
0 448 03-10 DO YOU WORK WITH HIGH PASS FILTERS	0	1	1	0	0	6
0 449 03-11 DO YOU WORK WITH BANDPASS FILTERS	0	1	1	0	4	6
0 450 03-12 DO YOU WORK WITH BAND-REJECT FILTERS	0	1	1	0	0	6
0 451 03-13 DON'T REMEMBER WHICH TYPE OF FILTER YOU WORK WITH	0	1	1	0	0	6
0 452 03-14 DO YOU WORK WITH L-SECTION FILTER CONFIGURATION	0	1	1	2	7	6
0 453 03-15 DO YOU WORK WITH T-SECTION FILTER CONFIGURATION	0	1	1	1	0	3
0 454 03-16 DO YOU WORK WITH PI-SECTION FILTER CONFIGURATION	0	1	1	2	0	3
0 455 03-17 DON'T REMEMBER WHICH TYPE FILTER CONFIGURATION	2	2	2	2	7	9
0 456 03-18 DO THE FILTERS YOU WORK WITH USE PARALLEL RESONANT CIRCUITS	0	2	1	2	4	6
0 457 03-19 DO THE FILTERS YOU WORK WITH USE SERIES-PARALLEL CIRCUITS	0	2	1	2	4	6
0 458 03-20 DO THE FILTERS YOU WORK WITH USE SERIES RESONANT CIRCUITS	0	2	1	0	4	6

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
D 259 D3-21 DON'T REMEMBER WHICH TYPE OF BASIC CIRCUIT	2	1	1	0	7	6
D 260 D3-22 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CAPACITANCE OR INDUCTANCE VALUES REQUIRED FOR SPECIFIC	0	0	0	0	0	0
E 261 E1-01 DO YOU WORK WITH COUPLING DEVICES IN YOUR PRESENT JOB	0	3	2	2	11	9
E 262 E1-02 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH RC	0	3	2	5	7	9
E 263 E1-03 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH	0	2	1	5	0	9
E 264 E1-04 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH	0	2	1	2	11	9
E 265 E1-05 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM RC COUPLING	0	3	2	2	4	6
E 266 E1-06 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM IMPEDANCE COUPLING	0	2	1	2	4	6
E 267 E1-07 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM TRANSFORMER COUPLING	0	2	1	0	7	3
E 268 E1-08 DO YOU WORK WITH DIRECTLY COUPLED CIRCUITS	0	1	1	0	4	9
E 269 E1-09 DO YOU WORK WITH CAPACITIVE-RESISTIVE COUPLED CIRCUITS	0	1	1	0	4	9
E 270 E1-10 DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED CIRCUITS	0	1	1	0	4	9
E 271 E1-11 DO YOU WORK WITH TRANSFORMER COUPLED CIRCUITS	0	1	1	0	7	9
E 272 E1-12 DON'T REMEMBER WHICH TYPE OF COUPLING CIRCUITS	0	2	1	2	4	0
E 273 E2-01 IN YOUR PRESENT JOB, DO YOU PERFORM SOLDERING TECHNIQUES OR INSPECT OR EVALUATE SOLDERED CONNECTIONS	29	35	31	41	39	46
E 274 E2-02 DO YOU SELECT TYPE OF SOLDER TO USE	27	26	26	30	25	31
E 275 E2-03 DO YOU ADD FLUX TO CONNECTIONS	25	25	24	32	25	26
E 276 E2-04 DO YOU CLEAN CONNECTIONS USING SOLVENTS	21	29	26	27	25	26
E 277 E2-05 DO YOU STRIP INSULATION FROM WIRES	27	34	30	39	32	34
E 278 E2-06 DO YOU CONNECT OR DISCONNECT HEAT SINKS	18	20	19	23	25	31
E 279 E2-07 DO YOU BEND OR SHAPE WIRES OR LEADS	27	31	28	36	32	31
E 280 E2-08 DO YOU CUT WIRES	27	33	30	36	32	31
E 281 E2-09 DO YOU FILE OR SHAPE SOLDERING IRON TIPS	21	26	24	25	29	29
E 282 E2-10 DO YOU TIN SOLDERING IRON TIPS	21	28	25	30	32	34
E 283 E2-11 DO YOU CLEAN SOLDERING IRON TIPS	27	32	29	32	32	34
E 284 E2-12 DO YOU CLEAN ELECTRICAL SURFACES USING ERASERS	18	23	20	25	25	26
E 285 E2-13 DO YOU TYP OR PRE-TIN CONDUCTORS	20	19	19	23	32	34
E 286 E2-14 DO YOU INSPECT SOLDERED CONNECTIONS	21	30	26	34	39	43
E 287 E2-15 DO YOU DESOLDER CONNECTIONS BY WICKING	14	15	14	18	18	20
E 288 E2-16 DO YOU DESOLDER CONNECTIONS USING VACUUM DESOLDERING TOOLS	11	0	3	9	4	11
E 289 E2-17 DO YOU CUT COMPONENT LEADS TO REMOVE COMPONENTS	20	14	15	20	11	34
E 290 E2-18 DO YOU CRUSH COMPONENTS FOR REMOVAL	9	3	5	2	0	3

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

01-TSK

	SPL	SPL	SPL	SPL	SPL	SPL
	006	007	008	009	010	011
E 291 E2-19 DO YOU MAKE HARDWARE CONNECTIONS	18	25	22	27	32	34
E 292 E2-20 DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS	18	8	11	16	11	20
E 293 E2-21 DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS ON PRINTED CIRCUIT BOARDS	9	7	8	11	14	11
E 294 E2-22 DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS ON PRINTED CIRCUIT BOARDS	7	5	6	9	11	11
E 295 E3-01 DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB	7	16	13	23	25	23
E 296 E3-02 DO YOU ADJUST RELAYS	4	7	6	7	0	6
E 297 E3-03 DO YOU CLEAN RELAYS	0	7	5	7	4	6
E 298 E3-04 DO YOU INSPECT RELAYS	2	8	6	11	7	17
E 299 E3-05 DO YOU REMOVE OR REPLACE COMPLETE RELAYS	4	9	7	14	14	17
E 300 E3-06 DO YOU REMOVE OR REPLACE PARTS OR RELAYS	2	1	1	2	0	0
E 301 E3-07 DO YOU TROUBLESHOOT RELAYS	4	7	6	16	14	17
E 302 E3-08 DO YOU STRAIGHTEN RELAY CONTACTS	0	6	4	9	0	6
E 303 E3-09 DO YOU PERFORM TASKS ON RELAY CONTACTS	2	6	5	5	4	6
E 304 E3-10 DO YOU PERFORM TASKS ON RELAY COILS	0	0	0	0	0	0
E 305 E3-11 DO YOU PERFORM TASKS ON RELAY COILS	0	0	0	0	0	0
E 306 E3-12 DO YOU PERFORM TASKS ON RELAY ARMATURES	0	0	0	0	0	0
E 307 E3-13 DO YOU PERFORM TASKS ON RELAY SPRINGS	2	3	2	5	0	3
E 308 E3-14 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY OPEN (NO) SCHEMATIC SYMBOLS FOR RELAYS	5	9	8	16	14	23
E 309 E3-15 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY CLOSED (NC) SCHEMATIC SYMBOLS FOR RELAYS	4	8	6	16	18	23
E 310 E3-16 DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW (SPDT) SCHEMATIC SYMBOLS FOR RELAYS	2	7	5	16	18	20
E 311 E3-17 DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW (DPDT) SCHEMATIC SYMBOLS FOR RELAYS	2	8	6	16	18	20
E 312 E3-18 DO YOU USE OR REFER TO OTHER RELAY SYMBOLS SCHEMATIC SYMBOLS FOR RELAYS	2	7	5	11	18	14
E 313 E3-19 DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY MEASURING RESISTANCE	2	3	2	16	11	6
F 314 F1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH MICROPHONES	0	2	1	2	0	6
F 315 F1-02 DO YOU INSPECT MICROPHONES	0	0	0	0	0	3
F 316 F1-03 DO YOU CLEAN MICROPHONES	0	0	0	2	0	0
F 317 F1-04 DO YOU OPERATE MICROPHONES	0	2	1	2	0	6
F 318 F1-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT	0	0	0	2	0	3
F 319 F1-06 DO YOU TROUBLESHOOT DOWN TO MICROPHONE PARTS	0	0	0	0	0	0
F 320 F1-07 DO YOU REMOVE OR REPLACE COMPLETE MICROPHONES	0	0	0	2	0	3
F 321 F1-08 DO YOU REMOVE OR REPLACE MICROPHONE PARTS	0	0	0	0	0	0
F 322 F1-09 DO YOU PERFORM TASKS ON CARBON MICROPHONES	0	0	0	2	0	6
F 323 F1-10 DO YOU PERFORM TASKS ON CAPACITOR MICROPHONES	0	0	0	2	0	0
F 324 F1-11 DO YOU PERFORM TASKS ON CRYSTAL MICROPHONES	0	0	0	2	0	3
F 325 F1-12 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES	0	0	0	2	0	3
F 326 F1-13 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES	0	1	1	0	0	0

PCT MARKS PER TASKS BY AFMS GPS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-15K									
	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011			
F 327 F2-01 IN YOUR PRESENT JOB: DO YOU PERFORM ANY TASKS DEALING WITH SPEAKERS	0	0	0	2	0	4			
F 328 F2-02 DO YOU INSPECT SPEAKERS	0	0	0	0	0	6			
F 329 F2-03 DO YOU CLEAN SPEAKERS	0	0	0	0	0	0			
F 330 F2-04 DO YOU OPERATE SPEAKERS	0	0	0	0	0	4			
F 331 F2-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT	0	0	0	0	0	3			
F 332 F2-06 DO YOU TROUBLESHOOT DOWN TO SPEAKER PARTS	0	0	0	0	0	0			
F 333 F2-07 DO YOU REMOVE OR REPLACE COMPLETE SPEAKERS	0	0	0	0	0	4			
F 334 F2-08 DO YOU REMOVE OR REPLACE SPEAKER PARTS	0	0	0	0	0	0			
F 335 F2-09 DO YOU PERFORM ANY TASKS ON SPEAKER CONES	0	0	0	0	0	0			
F 336 F2-10 DO YOU PERFORM ANY TASKS ON SPEAKER SPIDERS	0	0	0	0	0	0			
F 337 F2-11 DO YOU PERFORM ANY TASKS ON SPEAKER FIELD COILS	0	0	0	0	0	0			
F 338 F2-12 DO YOU PERFORM ANY TASKS ON SPEAKER VOICE COILS	0	0	0	0	0	0			
F 339 F2-13 DO YOU PERFORM ANY TASKS ON SPEAKER PERMANENT MAGNETS	0	0	0	0	0	0			
F 340 F2-14 DO YOU PERFORM ANY TASKS ON SPEAKER ELECTROMAGNETS	0	0	0	0	0	0			
F 341 F2-15 DO YOU PERFORM ANY TASKS ON SPEAKER SOFT IRON CORES	0	0	0	0	0	0			
F 342 F3-01 DO YOU USE OSCILLOSCOPES IN YOUR PRESENT JOB	50	55	52	57	46	43			
F 343 F3-02 DO YOU USE OSCILLOSCOPES TO PERFORM OPERATIONAL CHECKS	30	42	37	39	36	40			
F 344 F3-03 DO YOU USE OSCILLOSCOPES TO PERFORM ALIGNMENTS OR ADJUSTMENTS	34	45	41	50	39	37			
F 345 F3-04 DO YOU USE OSCILLOSCOPES TO TROUBLESHOOT ELECTRONIC CIRCUITS	29	37	33	34	25	37			
F 346 F3-05 DO YOU USE OSCILLOSCOPES TO MEASURE FREQUENCY	43	46	44	48	36	34			
F 347 F3-06 DO YOU USE OSCILLOSCOPES TO MEASURE TIME	39	42	41	43	43	40			
F 348 F3-07 DO YOU USE OSCILLOSCOPES TO OBSERVE LISAJOUS PATTERNS	7	5	5	5	0	3			
F 349 F3-08 DO YOU USE OSCILLOSCOPES TO OBSERVE SIGNALS WHILE UTILIZING ATTENUATOR PROBES	29	35	31	25	25	29			
F 350 F3-09 DO YOU USE OSCILLOSCOPES TO MAKE FREQUENCY OR TIME MEASUREMENTS USING DELAY TIME MULTIPLIERS	21	22	21	20	18	20			
F 351 F3-10 DO YOU USE OSCILLOSCOPES TO MEASURE AC VOLTAGE	43	45	42	48	32	29			
F 352 F3-11 DO YOU USE OSCILLOSCOPES TO MEASURE OR OBSERVE SIGNALS AFTER FIRST ADJUSTING THE GAIN AND DC BAL CONTROLS	25	18	20	25	18	29			
F 353 F3-12 DO YOU USE OSCILLOSCOPES TO MEASURE DC VOLTAGE	34	39	36	43	25	31			
G 354 G1-01 DO YOU WORK WITH SEMICONDUCTOR DIODES IN YOUR PRESENT JOB	5	8	7	9	11	23			
G 355 G1-02 DO YOU INSPECT DIODES	4	7	6	9	14	23			
G 356 G1-03 DO YOU REMOVE OR REPLACE DIODES	0	5	3	7	11	17			
G 357 G1-04 DO YOU CHECK DIODES USING AN INSTRUMENT	2	5	4	7	4	14			
G 358 G1-05 DO YOU USE ENERGY LEVEL DIAGRAMS IN YOUR WORK WITH DIODES	0	0	0	0	0	0			
G 359 G1-06 DO YOU USE PN JUNCTION DIODE CHARACTERISTIC CURVES, TOGETHER WITH VALUES OF FORWARD AND REVERSE BIAS VOLTAGE, TO COMPUTE FORWARD OR REVERSE BIAS RESISTANCE FOR DIODES	2	0	1	0	0	0			

0-754

	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
361 GI-08 DO YOU USE OR REFER TO THE GENERAL RULE THAT TEMPERATURE CAN AFFECT THE OPERATION OF DIODES	2	1	1	2	4	14
362 GI-09 DO YOU IDENTIFY SEMICONDUCTOR DIODES AS OPPOSED TO OTHER ELECTRONIC COMPONENTS, SUCH AS RESISTORS, BASED ON	4	5	4	5	4	20
363 GI-10 DO YOU REFER TO OR DO YOU DETERMINE THE GENERAL EFFECTS OF DOPING ON CURRENT FLOW	0	2	1	0	0	0
364 GI-11 DO YOU USE OR REFER TO MEASUREMENTS OF FORWARD BIAS RESISTANCE	0	4	2	0	4	9
365 GI-12 DO YOU USE OR REFER TO DIODE COLOR CODING	2	2	2	0	4	6
366 GI-13 DO YOU USE OR REFER TO CENTRIFUGAL FORCE OF AN ELECTRON IN ORBIT AROUND A NUCLEUS	0	0	0	0	0	0
367 GI-14 DO YOU USE OR REFER TO CENTRIFUGAL FORCE OF AN ELECTRON IN ORBIT AROUND A NUCLEUS	0	0	0	0	0	0
368 GI-15 DO YOU USE OR REFER TO DIODE NUMBERING SYSTEM, SUCH AS IN 534	4	2	2	2	7	17
369 GI-16 DO YOU USE OR REFER TO KINETIC ENERGY OF AN ELECTRON MOVING IN ORBIT	0	0	0	0	0	0
370 GI-17 DO YOU USE OR REFER TO POTENTIAL ENERGY OF AN ELECTRON MOVING IN ORBIT	0	0	0	0	0	0
371 GI-18 DO YOU USE OR REFER TO MEASUREMENTS OF REVERSE BIAS RESISTANCE	0	4	2	0	4	9
372 GI-19 DO YOU USE OR REFER TO NUMBER OF ELECTRONS IN A PARTICULAR SHELL OR ORBIT	0	0	0	0	0	0
373 GI-20 DO YOU USE OR REFER TO PERMISSIBLE ENERGY LEVELS OF AN ORBITING ELECTRON	0	0	0	0	0	0
374 GI-21 DO YOU USE OR REFER TO FORBIDDEN ENERGY LEVELS OF AN ORBITING ELECTRON	0	0	0	0	0	0
375 GI-22 DO YOU USE OR REFER TO VALENCE ELECTRONS (THOSE IN THE OUTERMOST SHELL)	0	0	0	0	0	0
376 GI-23 DO YOU USE OR REFER TO ATOMIC NUMBER (TOTAL NUMBER OF ELECTRONS IN ATOM)	0	0	0	0	0	3
377 GI-24 DO YOU USE OR REFER TO SYMBOLS ON THE DIODE WHICH INDICATE THE CATHODE END	4	5	5	9	11	20
378 GI-25 DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON	0	0	0	0	0	3
379 GI-26 DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE TEMPERATURE COEFFICIENTS OF RESISTANCE (AS TEMPERATURE	0	1	1	0	4	3
380 GI-27 DO YOU USE OR REFER TO PN JUNCTION DIODE CHARACTERISTIC CURVES, SUCH AS VOLTAGE - CURRENT	0	1	1	0	0	0
381 GI-28 DO YOU DETERMINE WHETHER PN JUNCTION DIODES ARE FORWARD BIASED OR REVERSE BIASED WHEN YOU READ OR	2	3	2	2	4	14
382 GI-29 DO YOU USE OR REFER TO VALENCE BAND IN SEMICONDUCTOR MATERIALS	0	0	0	0	0	3

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMINGSPL SPL SPL SPL SPL
004 007 008 009 010 011

DT-TSK

G 383 G1-30 DO YOU USE OR REFER TO FORBIDDEN BAND IN SEMICONDUCTOR MATERIALS	0	0	0	0	0	0
G 384 G1-31 DO YOU USE OR REFER TO CONDUCTION BAND IN SEMICONDUCTOR MATERIALS	0	0	0	0	0	0
G 385 G1-32 DO YOU USE OR REFER TO COVALENT BONDING IN SEMICONDUCTOR MATERIALS	0	0	0	0	0	0
G 386 G1-33 DO YOU USE OR REFER TO ELECTRON-HOLE PAIR CREATED IN SEMICONDUCTORS	0	0	0	0	0	3
G 387 G1-34 DO YOU USE OR REFER TO ELECTRON FLOW OR HOLE FLOW IN SEMICONDUCTORS	0	0	0	0	0	4
G 388 G1-35 DO YOU USE OR REFER TO DONOR IMPURITY IN SEMICONDUCTORS	0	0	0	0	0	0
G 389 G1-36 DO YOU USE OR REFER TO ACCEPTOR IMPURITY IN SEMICONDUCTORS	0	0	0	0	0	0
G 390 G1-37 DO YOU USE OR REFER TO P-TYPE SEMICONDUCTOR MATERIAL	0	0	0	0	0	3
G 391 G1-38 DO YOU USE OR REFER TO N-TYPE SEMICONDUCTOR MATERIAL	0	0	0	0	0	3
G 392 G1-39 DO YOU USE OR REFER TO MAJORITY CARRIERS IN SEMICONDUCTORS	0	0	0	0	0	0
G 393 G1-40 DO YOU USE OR REFER TO MINORITY CARRIERS IN SEMICONDUCTORS	0	0	0	0	0	0
G 394 G1-41 DO YOU USE OR REFER TO JUNCTION RECOMBINATION IN SEMICONDUCTORS	0	0	0	0	0	0
G 395 G1-42 DO YOU USE OR REFER TO DEPLETION REGION IN SEMICONDUCTORS	0	0	0	0	0	0
G 396 G1-43 DO YOU USE OR REFER TO RELATIONSHIP BETWEEN BARRIER WIDTH AND DIFFERENCE OF POTENTIAL	0	0	0	0	0	0
G 397 G1-44 DO YOU USE OR REFER TO THE 10:1 BACK TO FRONT RESISTANCE RATIO FOR DIODES	0	3	2	2	4	17
G 398 G1-45 DO YOU USE OR REFER TO BARRIER HEIGHT IN SEMICONDUCTORS	0	0	0	0	0	3
G 399 G1-46 DO YOU USE OR REFER TO DIODE SUBSTITUTION INFORMATION	2	0	1	2	0	6
G 400 G1-47 DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD CURRENT DIODE RATINGS	0	1	1	0	0	3
G 401 G1-48 DO YOU USE OR REFER TO PEAK RECURRENT FORWARD CURRENT DIODE RATINGS	0	1	1	0	0	0
G 402 G1-49 DO YOU USE OR REFER TO MAXIMUM SURGE CURRENT DIODE RATINGS	0	1	1	0	0	3
G 403 G1-50 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE DIODE RATINGS	0	1	1	0	0	3
G 404 G2-01 DO YOU WORK WITH TRANSISTORS IN YOUR PRESENT JOB	7	10	9	18	18	29
G 405 G2-02 DO YOU INSPECT TRANSISTORS	4	7	6	16	14	20
G 406 G2-03 DO YOU REMOVE OR REPLACE TRANSISTORS	2	3	2	14	11	20
G 407 G2-04 DO YOU CHECK TRANSISTORS USING AN INSTRUMENT	2	3	2	9	4	14
G 408 G2-05 DO YOU USE OR REFER TO EMITTER - BASE (EB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS	0	2	1	5	7	14
G 409 G2-06 DO YOU USE OR REFER TO COLLECTOR - BASE (CB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS	0	2	1	5	4	14

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMANCE

0Y-15K

	SPL	SPL	SPL	SPL	SPL	SPL
	006	007	008	009	010	011
G 410 G2-07 DO YOU USE OR REFER TO EMITTER - COLLECTOR (EC)	0	2	1	7	4	14
RESISTANCE MEASUREMENTS						
G 411 G2-08 DO YOU USE OR REFER TO MU-BIASING AFFECTS THE	0	1	1	0	0	3
PHYSICAL BARRIER WIDTH OF THE EMITTER - BASE JUNCTION						
G 412 G2-09 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE	0	1	1	0	0	3
PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION						
G 413 G2-10 DO YOU USE OR REFER TO THE PHYSICAL SIZE OF THE	0	1	1	5	0	6
TRANSISTOR STRUCTURE (COLLECTOR, BASE AND EMITTER)						
G 414 G2-11 DO YOU USE OR REFER TO LEAKAGE CURRENT (ICBO) IN A	0	0	0	0	0	3
TRANSISTOR						
G 415 G2-12 DO YOU USE OR REFER TO TRANSISTOR SCHEMATIC SYMBOLS	4	7	6	16	14	31
G 416 G2-13 DO YOU USE OR REFER TO TRANSISTOR NOTATION SUCH AS	5	7	6	14	18	29
Q1, Q2, Q3, ETC						
G 417 G2-14 DO YOU USE OR REFER TO TRANSISTOR SUBSTITUTION	2	0	1	2	0	9
INFORMATION						
G 418 G2-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE	0	1	1	0	0	6
TRANSISTOR BASE CURRENT IS NORMALLY SIGNIFICANTLY						
G 419 G2-16 DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER	0	4	2	5	11	3
BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR						
G 420 G2-17 DO YOU USE THE GENERAL RULE THAT LEAKAGE CURRENT	0	1	1	0	4	3
(ICBO) IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES						
G 421 G2-18 DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC	0	0	0	2	0	0
CURVES						
G 422 G2-19 DO YOU USE OR REFER TO BETA TRANSISTOR GAINS	0	0	0	0	0	0
G 423 G2-20 DO YOU USE OR REFER TO ALPHA TRANSISTOR GAINS	0	0	0	0	0	0
G 424 G2-21 DO YOU USE OR REFER TO GAMMA TRANSISTOR GAINS	0	0	0	0	0	0
G 425 G2-22 DO YOU CALCULATE BETA TRANSISTOR GAINS	0	0	0	0	0	0
G 426 G2-23 DO YOU CALCULATE ALPHA TRANSISTOR GAINS	0	0	0	0	0	0
G 427 G2-24 DO YOU CALCULATE GAMMA TRANSISTOR GAINS	0	0	0	0	0	0
G 428 G3-01 DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR	0	3	2	7	7	11
PRESENT JOB						
G 429 G3-02 DO YOU INSPECT TRANSISTOR AMPLIFIERS	0	1	1	7	7	6
G 430 G3-03 DO YOU ALIGN OR ADJUST TRANSISTOR AMPLIFIERS	0	2	1	5	7	3
G 431 G3-04 DO YOU TROUBLESHOOT TO THE AMPLIFIER CIRCUIT LEVEL	0	1	1	7	7	3
G 432 G3-05 DO YOU TROUBLESHOOT TO AMPLIFIER COMPONENTS	0	0	0	7	4	3
G 433 G3-06 DO YOU REMOVE OR REPLACE THE COMPLETE AMPLIFIER	0	2	1	7	7	6
G 434 G3-07 DO YOU REMOVE OR REPLACE AMPLIFIER COMPONENTS	0	0	0	2	0	3
G 435 G3-08 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN	0	0	0	0	0	0
COLLECTOR CURRENT WHICH RESULTS FROM A CHANGE IN BASE						
G 436 G3-09 DO YOU USE OR REFER TO (COMMON EMITTER) THE	0	0	0	0	0	0
CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN						

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

D1-TSK

SPL SPL SPL SPL SPL
006 007 008 009 010 011

G 437 G3-10 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN COLLECTOR VOLTAGE WHICH RESULTS FROM A CHANGE IN BASE

G 438 G3-11 DO YOU USE OR REFER TO (COMMON EMITTER) THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN

G 439 G3-12 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN BASE CURRENT WHICH RESULTS FROM AN INPUT SIGNAL

G 440 G3-13 DO YOU USE OR REFER TO (COMMON EMITTER) THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN

G 441 G3-14 DO YOU USE THE LOAD-LINE METHOD OF ANALYSIS IN YOUR CIRCUIT ANALYSIS (THIS METHOD REQUIRES YOU TO PLOT A

G 442 G3-15 DO YOU USE OR REFER TO THE OPERATING POINT Q (QUIESCENT POINT) FOR A TRANSISTOR

G 443 G3-16 DO YOU CALCULATE THE SPECIFIC QUIESCENT POINT FOR A PARTICULAR TRANSISTOR

G 444 G3-17 DO YOU MEASURE VOLTAGE GAIN USED IN THE COMMON EMITTER CONFIGURATION

G 445 G3-18 DO YOU MEASURE CURRENT GAIN USED IN THE COMMON EMITTER CONFIGURATION

G 446 G3-19 DO YOU MEASURE POWER GAIN USED IN THE COMMON EMITTER CONFIGURATION

G 447 G3-20 DO YOU CALCULATE THE VOLTAGE GAIN FOR SPECIFIC TRANSISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE CHANGE

G 448 G3-21 DO YOU CALCULATE THE CURRENT GAIN FOR SPECIFIC TRANSISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE

G 449 G3-22 DO YOU CALCULATE THE POWER GAIN FOR A SPECIFIC TRANSISTOR USING A FORMULA THAT IS, DO YOU MULTIPLY THE

G 450 G3-23 DO YOU NEED TO KNOW THAT MORE COLLECTOR CURRENT IS GENERATED WITH LESS COLLECTOR VOLTAGE AS TEMPERATURE

G 451 G3-24 DO YOU COMPUTE THE STATIC OPERATING POINT (Q) OF A TRANSISTOR AT DIFFERENT TEMPERATURES

G 452 G3-25 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH

G 453 G3-26 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH SELF-

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-15A

	SPL	SPL	SPL	SPL	SPL
	006	007	008	009	010 011
G 454 G3-27 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY	0	0	0	0	0
G 455 G3-28 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY	0	1	1	0	0
G 456 G3-29 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY	0	1	1	0	0
G 457 G3-30 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY	0	1	1	0	0
G 458 G3-31 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM EMITTER (SWAMPING) RESISTOR STABILIZATION	0	0	0	0	0
G 459 G3-32 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM SELF-BIAS STABILIZATION	0	1	1	0	0
G 460 G3-33 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM THERMISTOR STABILIZATION	0	0	0	0	0
G 461 G3-34 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM FORWARD BIAS DIODE STABILIZATION	0	1	1	0	0
G 462 G3-35 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM REVERSE BIAS DIODE STABILIZATION	0	1	1	0	0
G 463 G3-36 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM DOUBLE DIODE STABILIZATION	0	1	1	0	0
G 464 G3-37 DO YOU IDENTIFY AMPLITUDE DISTORTION FOR TRANSISTOR CIRCUITS	0	1	1	0	0
G 465 G3-38 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF AMPLITUDE DISTORTION	0	0	0	0	0
G 466 G3-39 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR CIRCUITS	0	0	0	0	0
G 467 G3-40 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR CIRCUITS	0	0	0	0	0
G 468 G3-41 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF PHASE DISTORTION	0	0	0	0	0
G 469 G3-42 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF FREQUENCY DISTORTION	0	0	0	0	0
G 470 G3-43 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING EMITTER RESISTANCE FOR	0	0	0	0	0
G 471 G3-44 DO YOU DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS	0	1	1	0	0
G 472 G3-45 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS	0	1	1	0	0
G 473 G3-46 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS	0	2	1	7	4
G 474 G3-47 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS	0	1	1	0	0
G 475 G3-48 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS	0	2	1	2	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
G 476 G3-49 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS	0	1	1	2	0	3
M 477 M1-01 DO YOU USE OR REFER TO VARACTORS	2	2	2	0	4	3
M 478 M1-02 DO YOU USE OR REFER TO TUNNEL DIODES	2	2	2	2	7	11
M 479 M1-03 DO YOU USE OR REFER TO FIELD EFFECT TRANSISTORS (FET)	5	5	5	16	14	17
M 480 M1-04 DO YOU USE OR REFER TO UNIJUNCTION TRANSISTORS	5	5	5	9	14	14
M 481 M1-05 DO YOU USE OR REFER TO ZENER DIODES	7	15	12	34	25	34
M 482 M1-06 DO YOU USE OR REFER TO INTEGRATED CIRCUITS	11	30	23	36	29	31
M 483 M2-01 IN YOUR PRESENT JOB, DO YOU WORK WITH POWER SUPPLIES	50	36	41	45	39	37
M 484 M2-02 DO YOU INSPECT POWER SUPPLIES	32	24	27	34	32	34
M 485 M2-03 DO YOU CLEAN POWER SUPPLIES	23	14	18	25	11	23
M 486 M2-04 DO YOU ALIGN OR ADJUST POWER SUPPLIES	29	16	20	30	34	31
M 487 M2-05 DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL	18	9	12	23	29	29
M 488 M2-06 DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS	9	5	6	14	11	29
M 489 M2-07 DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES	23	17	19	25	25	20
M 490 M2-08 DO YOU REMOVE OR REPLACE POWER SUPPLY COMPONENTS	9	4	5	16	14	23
M 491 M2-09 DO YOU WORK WITH HALF-WAVE RECTIFIERS	4	5	5	11	18	20
M 492 M2-10 DO YOU WORK WITH FULL-WAVE RECTIFIERS OTHER THAN BRIDGE RECTIFIERS	4	5	4	5	14	23
M 493 M2-11 DO YOU WORK WITH BRIDGE RECTIFIERS	5	4	4	11	18	23
M 494 M2-12 DO YOU WORK WITH THREE-PHASE RECTIFIERS	2	2	2	2	11	4
M 495 M2-13 DO YOU USE OR REFER TO INPUT VOLTAGE	18	12	13	30	14	29
M 496 M2-14 DO YOU USE OR REFER TO INPUT FREQUENCY	11	12	11	18	14	11
M 497 M2-15 DO YOU USE OR REFER TO PEAK OUTPUT VOLTAGE	16	8	10	27	14	17
M 498 M2-16 DO YOU USE OR REFER TO AVERAGE OUTPUT VOLTAGE	14	6	9	18	7	23
M 499 M2-17 DO YOU USE OR REFER TO RIPPLE AMPLITUDE	2	2	2	7	4	11
M 500 M2-18 DO YOU USE OR REFER TO RIPPLE FREQUENCY	0	2	1	5	4	9
M 501 M2-19 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE	0	4	2	0	0	14
M 502 M2-20 DO YOU USE OR REFER TO SHAPE OF OUTPUT WAVEFORMS	7	6	6	20	14	17
M 503 M2-21 DO YOU USE OR REFER TO EFFECTIVE OUTPUT VOLTAGE	13	7	9	18	7	26
M 504 M2-22 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE FILTERS	2	3	2	9	21	17
M 505 M2-23 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE FILTERS	2	2	2	11	14	11
M 506 M2-24 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE INPUT L-TYPE FILTERS	2	2	2	5	7	9
M 507 M2-25 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE INPUT L-TYPE FILTERS	2	1	1	5	0	9
M 508 M2-26 DO YOU WORK WITH CIRCUITS WHICH EMPLOY LC PI-TYPE FILTERS	4	1	2	0	4	6
M 509 M2-27 DO YOU WORK WITH CIRCUITS WHICH EMPLOY RC PI-TYPE FILTERS	2	2	2	0	4	9
M 510 M2-28 DO YOU WORK WITH CIRCUITS WHICH EMPLOY DON'T REMEMBER WHICH TYPE OF FILTER	14	7	9	16	25	11
M 511 M2-29 DO YOU HAVE THE OPTION OF REPLACING ONE TYPE OF FILTER WITH A DIFFERENT TYPE FILTER	0	0	0	0	0	3
M 512 M3-01 DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB	2	3	2	7	7	6

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

01-15K

	SPL	SPL	SPL	SPL	SPL	SPL
	006	007	008	009	010	011
M 513 M3-02 DO YOU INSPECT OSCILLATORS	2	2	2	5	7	6
M 514 M3-03 DO YOU ALIGN OR ADJUST OSCILLATORS	2	3	2	7	7	3
M 515 M3-04 DO YOU REMOVE OR REPLACE COMPLETE OSCILLATORS	2	2	2	7	7	0
M 516 M3-05 DO YOU REMOVE OR REPLACE OSCILLATOR COMPONENTS	0	1	1	2	0	0
M 517 M3-06 DO YOU TROUBLESHOOT TO OSCILLATOR CIRCUIT LEVEL	2	2	2	7	7	0
M 518 M3-07 DO YOU TROUBLESHOOT TO OSCILLATOR COMPONENTS	0	1	1	2	0	3
M 519 M3-08 DO YOU USE OR REFER TO FEEDBACK	0	2	1	0	11	9
M 520 M3-09 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)	0	2	1	0	11	0
M 521 M3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY	0	2	1	0	4	3
M 522 M3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY	0	2	1	0	4	3
M 523 M3-12 DO YOU USE OR REFER TO DAMPING	0	2	1	2	7	3
M 524 M3-13 DO YOU USE OR REFER TO GENERATIVE FEEDBACK	0	1	1	0	7	6
M 525 M3-14 DO YOU USE OR REFER TO PIEZOELECTRIC EFFECT	2	2	2	0	7	3
M 526 M3-15 DO YOU USE OR REFER TO CRITICAL DAMPING	0	1	1	0	0	3
M 527 M3-16 DO YOU USE OR REFER TO UNDER DAMPING	0	2	1	0	0	3
M 528 M3-17 DO YOU USE OR REFER TO OVER DAMPING	0	2	1	0	0	3
M 529 M3-18 DO YOU WORK WITH OSCILLATORS WHICH USE LC TANK	0	1	1	0	7	3
M 530 M3-19 DO YOU WORK WITH OSCILLATORS WHICH USE RC NETWORKS AS FDD	0	1	1	0	7	3
M 531 M3-20 DO YOU WORK WITH OSCILLATORS WHICH USE CRYSTALS AS FDD	0	2	1	0	7	3
M 532 M3-21 DO YOU WORK WITH OSCILLATORS WHICH USE DON'T REMEMBER WHICH TYPE OF FDD	5	1	2	5	4	0
M 533 M3-22 DO YOU WORK WITH SERIES HARTLEY SINUSOIDAL OSCILLATORS	0	1	1	0	0	3
M 534 M3-23 DO YOU WORK WITH SHUNT HARTLEY SINUSOIDAL OSCILLATORS	0	1	1	0	0	3
M 535 M3-24 DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS	0	1	1	0	0	3
M 536 M3-25 DO YOU WORK WITH CLAPP SINUSOIDAL OSCILLATORS	0	1	1	0	0	0
M 537 M3-26 DO YOU WORK WITH BUTLER SINUSOIDAL OSCILLATORS	0	0	0	0	0	0
M 538 M3-27 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF OSCILLATORS	5	1	2	5	7	0
I 539 I1-01 DO YOU WORK WITH MULTIPLIERS IN YOUR PRESENT JOB	0	3	2	0	14	3
I 540 I1-02 DO YOU INSPECT WAVE GENERATING OR SHAPING CIRCUITS	0	3	2	0	7	3
I 541 I1-03 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING CIRCUITS	0	3	2	0	11	6
I 542 I1-04 DO YOU CALIBRATE WAVE GENERATING OR SHAPING CIRCUITS	0	3	2	0	7	6
I 543 I1-05 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUITS	0	3	2	0	14	3
I 544 I1-06 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING CIRCUITS	0	2	1	0	11	3
I 545 I1-07 DO YOU REMOVE OR REPLACE COMPLETE WAVE GENERATING OR SHAPING CIRCUITS	0	3	2	0	14	3
I 546 I1-08 DO YOU REMOVE OR REPLACE WAVE GENERATING OR SHAPING COMPONENTS	0	0	0	0	4	3
I 547 I1-09 DO YOU WORK WITH MULTIPLIERS WHICH CONTAIN LC TANK CIRCUITS	0	1	1	0	11	3

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
1 548 11-10 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC NETWORKS	0	1	1	0	11	4
1 549 11-11 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN CRYSTALS	0	2	1	0	7	3
1 550 11-12 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN DON'T REMEMBER WHICH TYPE OF FDO	0	2	1	2	7	0
1 551 11-13 DO YOU WORK WITH ASTABLE MULTIVIBRATORS	0	0	0	0	4	3
1 552 11-14 DO YOU WORK WITH MONOSTABLE MULTIVIBRATORS	0	0	0	0	7	3
1 553 11-15 DO YOU WORK WITH BISTABLE MULTIVIBRATORS	0	0	0	0	7	3
1 554 11-16 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE MULTIVIBRATORS	0	3	2	2	11	3
1 555 12-01 DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR PRESENT JOB	0	1	1	0	14	3
1 556 12-02 DO YOU WORK WITH SERIES DIODE LIMITERS	0	1	1	0	4	3
1 557 12-03 DO YOU WORK WITH SHUNT DIODE LIMITERS	0	1	1	0	11	3
1 558 12-04 DO YOU WORK WITH LIMITERS WITH BIAS	0	0	0	0	7	3
1 559 12-05 DO YOU WORK WITH ZENER DIODE LIMITERS	0	1	1	0	7	4
1 560 12-06 DO YOU WORK WITH TRANSISTOR LIMITERS	0	1	1	0	4	3
1 561 12-07 DO YOU WORK WITH DON'T KNOW WHICH TYPE OF LIMITERS	0	0	0	0	7	0
1 562 12-08 DO YOU WORK WITH BASIC DIODE CLAMPING CIRCUITS	0	0	0	0	4	3
1 563 12-09 DO YOU WORK WITH DIODE CLAMPING CIRCUITS WITH BIAS	0	0	0	0	4	3
1 564 12-10 DO YOU WORK WITH DON'T KNOW WHICH TYPE OF CLAMPING CIRCUIT	0	1	1	0	4	0
1 565 13-01 IN YOUR PRESENT JOB DO YOU WORK ON EQUIPMENT WHICH CONTAINS ELECTRON TUBES	0	5	3	2	0	14
1 566 13-02 DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD	0	3	2	0	0	4
1 567 13-03 DO YOU USE TUBE TESTERS TO CHECK ELECTRON TUBES	0	2	1	0	0	4
1 568 13-04 DO YOU USE MULTIMETERS TO CHECK ELECTRON TUBES	0	3	2	0	0	4
1 569 13-05 DO YOU USE SCOPES TO CHECK ELECTRON TUBES	0	3	2	0	0	4
1 570 13-06 DO YOU USE SUBSTITUTION TO CHECK ELECTRON TUBES	0	3	2	0	0	9
1 571 13-07 DO YOU USE OR REFER TO CUTOFF	0	1	1	0	0	3
1 572 13-08 DO YOU USE OR REFER TO PEAK INVERSE VOLTAGE RATING	0	1	1	0	0	0
1 573 13-09 DO YOU USE OR REFER TO PEAK CURRENT RATING	0	1	1	0	0	3
1 574 13-10 DO YOU USE OR REFER TO TRANSIT TIME	0	0	0	0	0	0
1 575 13-11 DO YOU USE OR REFER TO PLATE DISSIPATION RATING	0	0	0	0	0	3
1 576 13-12 DO YOU USE OR REFER TO SATURATION	0	1	1	0	0	3
1 577 13-13 DO YOU USE OR REFER TO DC PLATE RESISTANCE	0	0	0	0	0	3
1 578 13-14 DO YOU COMPUTE ACTUAL VALUES OF THE DC PLATE RESISTANCE FOR ELECTRON TUBES	0	0	0	0	0	0
1 579 13-15 DO YOU USE OR REFER TO PLATE VOLTAGE	0	2	1	2	0	3
1 580 13-16 DO YOU USE OR REFER TO PLATE CURRENT	0	2	1	2	0	3
1 581 13-17 DO YOU USE OR REFER TO GRID VOLTAGE	0	2	1	2	0	3
1 582 13-18 DO YOU USE OR REFER TO GRID CURRENT	0	2	1	2	0	3
1 583 13-19 DO YOU USE OR REFER TO CATHODE VOLTAGE	0	2	1	2	0	3
1 584 13-20 DO YOU USE OR REFER TO CATHODE CURRENT	0	2	1	2	0	3
1 585 13-21 DO YOU USE OR REFER TO THE TRIODE AMPLIFICATION FACTOR (THE AMPLIFICATION FACTOR FOR TRIODES IS DEFINED AS	0	0	0	0	0	3

01-15X

	SPL	SPL	SPL	SPL	SPL	SPL
	006	007	008	009	010	011
1 586 13-22 DO YOU CALCULATE ACTUAL VALUES OF TRIODE AMPLIFICATION FACTORS	0	0	0	0	0	0
1 587 13-23 DO YOU USE OR REFER TO MULTIGRID (TETRODE, PENTODE, ETC) AMPLIFICATION FACTORS	0	0	0	0	0	3
1 588 13-24 DO YOU USE OR REFER TO ELECTRON TUBE TRANSCONDUCTANCE (G, WHICH IS MEASURED IN MHOS)	0	0	0	0	0	0
1 589 13-25 DO YOU CALCULATE ACTUAL VALUES OF ELECTRON TUBE TRANSCONDUCTANCES	0	0	0	0	0	0
1 590 13-26 DO YOU USE OR REFER TO THE ELECTRON TUBE PARAMETER CALLED AC PLATE RESISTANCE	0	0	0	0	0	3
1 591 13-27 DO YOU CALCULATE ACTUAL VALUES OF AC PLATE RESISTANCE	0	0	0	0	0	0
1 592 13-28 DO YOU USE OR REFER TO ELECTRON TUBE INTERELECTRODE CAPACITANCE	0	0	0	0	0	3
1 593 13-29 DO YOU USE OR REFER TO CHARACTERISTIC CURVES IN YOUR WORK WITH ELECTRON TUBES	0	0	0	0	0	3
1 594 13-30 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE VOLTAGE FOR A SPECIFIED BIAS	0	0	0	0	0	3
1 595 13-31 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE CURRENT FOR A SPECIFIED BIAS	0	0	0	0	0	0
1 596 13-32 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR CUTOFF	0	0	0	0	0	3
1 597 13-33 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR SATURATION	0	0	0	0	0	3
1 598 13-34 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER GAIN	0	2	1	0	0	3
1 599 13-35 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER EFFICIENCY	0	1	1	0	0	3
1 600 13-36 DO YOU USE TEST TUBE CHECKERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	0	2	1	0	0	3
1 601 13-37 DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	0	2	1	0	0	0
1 602 13-38 DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	0	2	1	0	0	0
1 603 13-39 DO YOU USE CHARACTERISTIC CURVES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	0	0	0	0	0	3
1 604 13-40 DO YOU CALCULATE ANY ELECTRON TUBE CAPACITANCES SUCH AS INPUT CAPACITANCE	0	0	0	0	0	0
1 605 13-41 DO YOU USE OR REFER TO TUBE SOCKET NOTATION	0	2	1	0	0	9
1 606 13-42 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS	0	2	1	0	0	9
1 607 13-43 DO YOU USE OR REFER TO THE TYPE OF MATERIAL OR THE OPERATING TEMPERATURE OF THE EMITTING SURFACE IN THE	0	0	0	0	0	0
1 608 13-44 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL SUCH AS MANUALS OR CHARTS	0	2	1	0	0	9
1 609 11-01 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS IN YOUR PRESENT JOB	0	2	1	0	4	3
1 610 11-02 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER	0	1	1	0	0	3

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
J 611 J1-03 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS	0	1	1	0	0	3
J 612 J1-04 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS	0	2	1	0	0	3
J 613 J1-05 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS	0	1	1	0	0	0
J 614 J1-06 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS	0	1	1	0	0	3
J 615 J1-07 DO YOU TROUBLESHOOT OR REPAIR DON'T KNOW WHICH TYPE OF AMPLIFIER	0	2	1	0	0	0
J 616 J2-01 DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD CATHODE)	0	1	1	0	0	4
J 617 J2-02 DO YOU WORK WITH CATHODE-RAY TUBES	7	5	5	7	4	9
J 618 J2-03 DO YOU USE OR REFER TO THE CHARACTERISTICS OF BEAM POWER TUBES	0	0	0	0	0	0
J 619 J2-04 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH BEAM POWER TUBES ARE USED	0	0	0	0	0	0
J 620 J2-05 DO YOU USE OR REFER TO THE CHARACTERISTICS OF THYRATRONS	0	1	1	0	0	3
J 621 J2-06 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH THYRATRONS ARE USED	0	1	1	0	0	3
J 622 J2-07 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTRON GUNS OF CATHODE-RAY TUBES (CRT)	4	1	2	5	7	3
J 623 J2-08 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES	4	1	2	2	4	3
J 624 J2-09 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROSTATIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES	4	1	2	2	0	3
J 625 J2-10 DO YOU USE OR REFER TO PHOSPHOR SCREENS	2	0	1	2	4	6
J 626 J2-11 DO YOU USE OR REFER TO AQUADAG COATINGS	0	1	1	0	4	0
J 627 J2-12 DO YOU USE OR REFER TO ELECTRON OPTICS	0	0	0	0	4	6
J 628 J2-13 DO YOU USE OR REFER TO PERSISTENCE	0	0	0	0	4	3
J 629 J2-14 DO YOU USE OR REFER TO DECAY TIMES	0	0	0	0	0	3
J 630 J2-15 DO YOU USE OR REFER TO FLUORESCENCE	0	1	1	0	0	6
J 631 J2-16 DO YOU USE OR REFER TO PHOSPHORESCENCE	2	0	1	0	4	6
J 632 J3-01 DO YOU WORK ON TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB	7	3	4	2	4	3
J 633 J3-02 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS	2	1	1	0	0	3
J 634 J3-03 DO YOU PERFORM TASKS ON FREQUENCY MIXERS	2	0	1	0	0	3
J 635 J3-04 DO YOU USE OR REFER TO THE HETERODYNING OF SIGNALS IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS	2	0	1	0	4	3
J 636 J3-05 DO YOU PERFORM TASKS ON REACTANCE MODULATORS	0	0	0	0	0	0
J 637 J3-06 DO YOU PERFORM TASKS ON MODULATED OSCILLATORS	0	0	0	0	0	0
K 638 K1-01 DO YOU WORK ON A TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB	0	2	1	0	0	0
K 639 K1-02 DO YOU INSPECT A TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0
K 640 K1-03 DO YOU CLEAN A TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0
K 641 K1-04 DO YOU ALIGN OR ADJUST A TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

01-TSK

SPL SPL SPL SPL SPL
008 007 008 009 010 011

K 676 K2-11 DO YOU PERFORM TASKS ON DRIVERS (INTERMEDIATE AMPLIFIERS) 0 0 0 0 0 3

K 677 K2-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS 0 0 0 0 0 3

K 678 K2-13 DO YOU PERFORM TASKS ON RF AMPLIFIERS 0 0 0 0 0 3

K 679 K2-14 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS 0 0 0 0 0 3

K 680 K2-15 DO YOU PERFORM TASKS ON IF AMPLIFIERS 0 0 0 0 0 3

K 681 K2-16 DO YOU PERFORM TASKS ON LIMITERS 0 0 0 0 0 3

K 682 K2-17 DO YOU PERFORM TASKS ON FREQUENCY DISCRIMINATORS 0 0 0 0 0 3

K 683 K2-18 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS 0 0 0 0 4 3

K 684 K2-19 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS 0 0 0 0 4 3

K 685 K3-01 DO YOU CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL (BASE 8) NUMBERS 0 1 1 0 0 3

K 686 K3-02 DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS 0 4 2 0 4 6

K 687 K3-03 DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS 0 1 1 0 0 0

K 688 K3-04 DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS 0 0 0 0 0 0

K 689 K3-05 DO YOU CONVERT BINARY NUMBERS TO DECIMAL NUMBERS 0 3 2 0 4 3

K 690 K3-06 DO YOU CONVERT BINARY NUMBERS TO OCTAL NUMBERS 0 0 0 0 0 0

K 691 K3-07 DO YOU ADD BINARY NUMBERS TO GET A SUM 0 5 3 0 4 9

K 692 K3-08 DO YOU SUBTRACT BINARY NUMBERS USING THE END-AROUND-CARRY METHOD 0 2 1 0 0 0

K 693 K3-09 DO YOU SUBTRACT BINARY NUMBERS USING THE DIRECT SUBTRACTION METHOD 0 2 1 0 0 0

K 694 K3-10 DO YOU ADD OCTAL NUMBERS TO GET A SUM 0 0 0 0 0 0

L 695 L1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO LOGIC FUNCTIONS 4 8 6 11 21 11

L 696 L1-02 DO YOU CONSTRUCT TRUTH TABLES FOR AND LOGIC SYMBOLS OR GATES 4 4 3 2 7 3

L 697 L1-03 DO YOU CONSTRUCT TRUTH TABLES FOR OR LOGIC SYMBOLS OR GATES 4 4 3 2 4 3

L 698 L1-04 DO YOU CONSTRUCT TRUTH TABLES FOR AND OR LOGIC SYMBOLS WITH STATE INDICATORS 4 4 3 2 4 3

L 699 L1-05 DO YOU CONSTRUCT TRUTH TABLES FOR EXCLUSIVE OR LOGIC SYMBOLS OR GATES 4 4 3 0 4 3

L 700 L1-06 DO YOU USE OR REFER TO TRUTH TABLES FOR AND LOGIC SYMBOLS OR GATES 4 7 6 5 18 6

L 701 L1-07 DO YOU USE OR REFER TO TRUTH TABLES FOR OR LOGIC SYMBOLS OR GATES 4 7 6 5 14 6

L 702 L1-08 DO YOU USE OR REFER TO TRUTH TABLES FOR AND OR OR LOGIC SYMBOLS WITH STATE INDICATORS 4 6 5 5 14 6

L 703 L1-09 DO YOU USE OR REFER TO TRUTH TABLES FOR EXCLUSIVE OR LOGIC SYMBOLS 4 5 5 2 14 6

L 704 L1-10 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR AND GATES 4 8 6 7 18 6

L 705 L1-11 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR OR GATES 4 8 6 7 14 6

L 706 L1-12 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR NAND OR NOR GATES 4 8 6 9 18 11

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DT-13A

	SPL	SPL	SPL	SPL	SPL	SPL
	006	007	008	009	010	011
L 707 L1-13 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR EXCLUSIVE OR GATES	4	7	6	7	14	6
L 708 L2-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC	0	3	2	2	7	6
L 709 L2-02 DO YOU DRAW LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUITS	0	0	0	0	0	0
L 710 L2-03 DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS	0	1	1	0	0	0
L 711 L2-04 DO YOU DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN EQUATIONS	0	0	0	0	0	0
L 712 L2-05 DO YOU MEASURE INPUTS OR OUTPUTS OF LOGIC GATES	0	2	1	0	7	3
L 713 L2-06 DO YOU DEVELOP OR ANALYZE BOOLEAN EQUATIONS IN THE PROCESS OF TROUBLESHOOTING DIGITAL CIRCUITS	0	1	1	0	0	0
L 714 L2-07 DO YOU ANALYZE LOGIC CIRCUITS BY USING BOOLEAN ALGEBRA	0	1	1	0	4	0
L 715 L2-08 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUIT GATES	0	2	1	0	0	3
L 716 L2-09 DO YOU USE OR REFER TO TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS	0	2	1	0	0	3
L 717 L2-10 DO YOU USE OR REFER TO LOGIC DIAGRAMS CONSISTING OF MORE THAN ONE GATE	0	3	2	0	4	6
L 718 L2-11 DO YOU COMPUTE SUM AND CARRY EXPRESSIONS FOR SERIAL HALF OR FULL ADDER LOGIC DIAGRAMS	0	0	0	0	0	0
L 719 L2-12 DO YOU TRACE DATA FLOW THROUGH PARALLEL FULL ADDER LOGIC DIAGRAMS	0	0	0	0	0	0
L 720 L2-13 DO YOU WORK WITH ASTABLE (FREE RUNNING) MULTIVIBRATORS	0	1	1	0	4	3
L 721 L2-14 DO YOU WORK WITH BISTABLE (FLIP-FLOP) MULTIVIBRATORS	0	3	2	0	11	3
L 722 L2-15 DO YOU WORK WITH MONOSTABLE (ONE-SHOT) MULTIVIBRATORS	0	1	1	0	7	3
L 723 L2-16 DO YOU USE OR REFER TO FLIP-FLOP MULTIVIBRATOR SYMBOLS	0	2	1	0	7	6
L 724 L2-17 DO YOU USE OR REFER TO SINGLE-SHOT MULTIVIBRATOR SYMBOLS	0	1	1	0	7	3
L 725 L2-18 DO YOU USE OR REFER TO FLIP-FLOP CIRCUIT DIAGRAMS	0	2	1	2	11	3
L 726 L2-19 DO YOU USE OR REFER TO FLIP-FLOP TRUTH TABLES	0	2	1	0	7	6
L 727 L2-20 DO YOU USE OR REFER TO COMPLEMENTED FLIP-FLOP LOGIC SYMBOLS	0	1	1	0	0	3
L 728 L2-21 DO YOU USE OR REFER TO COMPLEMENTING FLIP-FLOP LOGIC SYMBOLS	0	1	1	0	0	3
L 729 L2-22 DO YOU MEASURE OUTPUT WAVESHAPES OF LOGIC CIRCUITS	0	1	1	0	7	0
L 730 L2-23 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTED FLIP-FLOP SCHEMATIC DIAGRAMS	0	1	1	2	0	6
L 731 L2-24 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS	0	1	1	2	0	6
L 732 L2-25 DO YOU CONSTRUCT TRUTH TABLES FOR J-K FLIP-FLOP LOGIC SYMBOLS	0	1	1	2	4	0

[illegible]

Dy-15K

	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
1732 L3-01 DO YOU WORK WITH DIGITAL COUNTERS IN YOUR PRESENT JOB	18	23	20	16	14	14
1733 L3-02 DO YOU USE OR REFER TO UP-COUNTERS	4	5	5	2	4	6
1734 L3-03 DO YOU USE OR REFER TO DOWN-COUNTERS	4	6	5	2	7	3
1735 L3-04 DO YOU USE OR REFER TO SERIAL COUNTERS	2	4	3	2	0	0
1736 L3-05 DO YOU USE OR REFER TO PARALLEL COUNTERS	0	2	1	0	0	0
1737 L3-06 DO YOU USE OR REFER TO RING COUNTERS	0	1	1	0	0	0
1738 L3-07 DO YOU USE OR REFER TO DECADE COUNTERS	2	6	5	7	7	0
1739 L3-08 DO YOU USE OR REFER TO COUNT DETECT CIRCUITS	0	2	1	0	0	0
1740 L3-09 DO YOU USE OR REFER TO DOWN CLOCKS	0	6	4	5	7	3
1741 L3-10 DO YOU USE OR REFER TO UP CLOCKS	0	7	5	5	4	3
1742 L3-11 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS	0	5	3	2	0	6
1743 L3-12 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENTING FLIP-DECADE COUNTERS	2	2	2	2	7	0
1744 L3-13 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF RING COUNTERS	0	0	0	0	0	0
1745 L3-14 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE REGISTER	0	0	0	0	0	0
1746 L3-15 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENTING FLIP-SHIFT REGISTERS	0	0	0	2	0	0
1747 L3-16 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF COUNTERS	0	0	0	0	4	6
1748 L3-17 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS	0	2	1	0	4	0
1749 L3-18 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS	0	1	1	0	0	0
1750 L3-19 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE REGISTER	0	0	0	0	0	0
1751 L3-20 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR OTHER TYPES OF COUNTERS	2	0	1	0	7	3
1752 L3-21 DO YOU CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF DECADE COUNTERS	0	0	0	0	0	0
1753 L3-22 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP IN RING COUNTERS FOR SPECIFIC INPUT PULSES	0	1	1	2	0	0
1754 L3-23 DO YOU DETERMINE THE APPROPRIATE AND GATE NECESSARY IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT	0	2	1	2	0	0
1755 MI-01 DO YOU WORK WITH SAWTOOTH WAVE GENERATORS	9	6	7	5	14	3
1756 MI-02 DO YOU WORK WITH TRAPEZOIDAL WAVE GENERATORS	0	0	0	0	0	0
1757 MI-03 DO YOU WORK WITH PULSED OSCILLATORS WITH REGENERATIVE FEEDBACK	0	2	1	2	7	2
1758 MI-04 DO YOU WORK WITH PULSED OSCILLATORS WITHOUT REGENERATIVE FEEDBACK	0	4	2	2	4	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

01-TSK

		SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
M 761 M1-05 DO YOU WORK WITH BLOCKING OSCILLATORS		0	2	1	2	4	3
M 762 M1-06 DO YOU USE OR REFER TO RISE TIME		5	9	8	2	7	11
M 763 M1-07 DO YOU USE OR REFER TO FALL OR FLYBACK TIME		2	4	3	2	11	9
M 764 M1-08 DO YOU USE OR REFER TO SLEEP TIME		14	23	19	14	14	17
M 765 M1-09 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH		2	8	6	2	7	14
WAVEFORMS							
M 766 M1-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH		4	5	5	2	7	9
WAVEFORMS							
M 767 M1-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH		2	5	3	2	7	6
WAVEFORMS							
M 768 M1-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH		0	4	2	2	7	3
WAVEFORMS							
M 769 M2-01 DO YOU USE SIGNAL GENERATORS IN YOUR PRESENT JOB		36	46	42	50	43	34
M 770 M2-02 DO YOU PERFORM OPERATIONAL CHECKS WHILE USING SIGNAL GENERATORS		27	29	27	30	39	31
M 771 M2-03 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS ADJUSTING, ALIGNING, OR CALIBRATING WHILE USING SIGNAL GENERATORS		20	32	28	39	29	26
M 772 M2-04 DO YOU TROUBLESHOOT TO A: ASSEMBLY OR SUBASSEMBLY WHILE USING SIGNAL GENERATORS		20	20	19	14	18	20
M 773 M2-05 DO YOU TROUBLESHOOT TO THE SMALLEST REPLACEABLE COMPONENT WHILE USING SIGNAL GENERATORS		5	6	6	7	0	3
M 774 M2-06 DO YOU USE AUDIO SINE-WAVE GENERATORS		29	29	29	34	32	29
M 775 M2-07 DO YOU USE AUDIO NON-SINUSOIDAL WAVE GENERATORS SUCH AS SQUARE WAVE, TRIANGLE, PULSE, OR SPIKE		7	6	6	0	7	0
M 776 M2-08 DO YOU USE RF GENERATORS LESS THAN 1,000 MH		9	13	11	9	7	17
M 777 M2-09 DO YOU USE RF GENERATORS GREATER THAN 1,000 MH		7	6	6	9	4	3
M 778 M2-10 DO YOU USE OTHER SPECIAL PURPOSE OR MULTI-FUNCTION GENERATORS		4	7	6	11	11	0
M 779 M3-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS OR		27	27	27	14	21	17
M 780 M3-02 DO YOU INSPECT MOTORS		14	11	12	7	11	14
M 781 M3-03 DO YOU CLEAN OR LUBRICATE MOTORS		4	6	5	2	4	6
M 782 M3-04 DO YOU OPERATE MOTORS		20	16	17	7	14	9
M 783 M3-05 DO YOU REMOVE OR REPLACE COMPLETE MOTORS		0	2	1	0	7	6
M 784 M3-06 DO YOU REMOVE OR REPLACE MOTOR PARTS		0	0	0	0	0	0
M 785 M3-07 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF MOTORS		13	5	8	7	4	9
M 786 M3-08 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF MOTORS		0	0	0	0	0	3
M 787 M3-09 DO YOU PERFORM ANY TASKS ON FIELD COILS		0	0	0	0	0	0
M 788 M3-10 DO YOU PERFORM ANY TASKS ON ARMATURES		0	1	1	0	0	0
M 789 M3-11 DO YOU PERFORM ANY TASKS ON ROTORS		0	1	1	0	0	0
M 790 M3-12 DO YOU PERFORM ANY TASKS ON BRUSHES		0	1	1	2	0	0
M 791 M3-13 DO YOU PERFORM ANY TASKS ON SLIP RINGS		0	0	0	0	0	0
M 792 M3-14 DO YOU PERFORM ANY TASKS ON COMMUTATORS		0	1	1	0	0	0
M 793 M3-15 DO YOU PERFORM ANY TASKS ON POLE PIECES		0	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
DY-TSK							
N 794 M3-16	DO YOU DETERMINE OR MEASURE THE MAGNITUDE OF THE FORCE OR TORQUE CREATED BY A MOTOR	0	0	0	0	0	0
N 795 M3-17	DO YOU DETERMINE OR MEASURE THE DIRECTION OF THE MECHANICAL FORCE OR TORQUE CREATED BY A MOTOR	0	0	0	0	0	0
N 796 M3-18	DO YOU DETERMINE OR MEASURE THE MAGNITUDE OR DIRECTION OF THE INDUCED VOLTAGE IN MOTORS	0	1	1	0	0	0
N 797 M3-19	DO YOU WORK WITH SYNCHRONOUS MOTORS	0	2	1	0	11	3
N 798 M3-20	DO YOU WORK WITH INDUCTION MOTORS	5	2	3	2	7	3
N 799 M3-21	DO YOU WORK WITH SPLIT-PHASE MOTORS	2	6	5	5	7	3
N 800 M3-22	DO YOU WORK WITH SOME COMBINATION OF THE ABOVE MOTORS	4	5	5	0	4	3
N 801 M3-23	DO YOU INSPECT GENERATORS	21	20	20	11	14	11
N 802 M3-24	DO YOU CLEAN OR LUBRICATE GENERATORS	4	4	3	0	0	3
N 803 M3-25	DO YOU OPERATE GENERATORS	21	25	24	11	18	9
N 804 M3-26	DO YOU REMOVE OR REPLACE COMPLETE GENERATORS	2	2	2	2	0	3
N 805 M3-27	DO YOU REMOVE OR REPLACE GENERATOR PARTS	0	0	0	0	0	0
N 806 M3-28	DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS	14	7	9	7	4	11
N 807 M3-29	DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS	0	0	0	0	0	0
N 808 N1-01	DO YOU WORK WITH METERS IN YOUR PRESENT JOB	52	67	63	41	50	51
N 809 N1-02	DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF PERMANENT MAGNETS	7	4	5	9	7	6
N 810 N1-03	DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF MOVING COILS	9	7	8	9	7	6
N 811 N1-04	DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF SPIRAL SPRINGS	7	3	4	9	4	6
N 812 N1-05	DO YOU READ METER SCALES	54	66	63	39	50	51
N 813 N1-06	DO YOU EXTEND THE RANGE OF AMMETERS	5	12	9	14	7	17
N 814 N1-07	DO YOU ZERO OHMMETERS	55	65	62	41	50	54
N 815 N1-08	DO YOU ZERO AMMETERS	25	28	27	20	18	31
N 816 N1-09	DO YOU EXTEND THE RANGE OF VOLTMETERS	21	28	25	14	7	17
N 817 N1-10	DO YOU USE OR REFER TO VOLTMETER SENSITIVITY (EXPRESSED IN UNITS OF OHMS PER VOLT)	23	16	18	14	21	34
N 818 N2-01	DO YOU WORK WITH SATURABLE REACTORS OR MAGNETIC AMPLIFIERS IN YOUR PRESENT JOB	0	0	0	0	0	3
N 819 N2-02	DO YOU INSPECT MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	0	0	0	0	0	3
N 820 N2-03	DO YOU CLEAN MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	0	0	0	0	0	0
N 821 N2-04	DO YOU ADJUST MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	0	0	0	0	0	0
N 822 N2-05	DO YOU TROUBLESHOOT MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	0	0	0	0	0	0
N 823 N2-06	DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	0	0	0	0	0	0
N 824 N2-07	DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIER OR SATURABLE REACTOR COMPONENTS	0	0	0	0	0	0

DI-15A

	SPL	SPL	SPL	SPL	SPL	SPL
	006	007	008	009	010	011
N 825 N2-08 DO YOU USE OR REFER TO HYSTERESIS CURVES OR LOOPS	0	0	0	0	4	0
N 826 N2-09 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT	0	0	0	0	4	0
N 827 N2-10 DO YOU MEASURE OUTPUT WAVEFORMS ACROSS REACTOR	0	0	0	0	0	0
N 828 N2-11 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP SATURABLE	0	0	0	0	4	0
N 829 N2-12 DO YOU USE OR REFER TO COERCIVE FORCE IN SATURABLE	0	0	0	0	0	0
N 830 N2-13 DO YOU USE OR REFER TO RESIDUAL MAGNETISM IN	0	0	0	0	0	0
N 831 N2-14 DO YOU USE OR REFER TO FLUX DENSITY IN SATURABLE	0	0	0	0	0	0
N 832 N2-15 DO YOU USE OR REFER TO POINT OF SATURATION IN	0	0	0	0	0	0
N 833 N2-16 DO YOU USE OR REFER TO SATURABLE REACTOR SCHEMATIC	0	0	0	0	4	3
N 834 N3-01 DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT	2	4	3	5	7	3
N 835 N3-02 DO YOU USE OR REFER TO TRANSIENT INTERVALS	2	0	1	0	4	3
N 836 N3-03 DO YOU USE OR REFER TO PULSE WIDTH (PW)	2	3	2	5	4	3
N 837 N3-04 DO YOU USE OR REFER TO PULSE RECURRENT TIME (PRT)	2	4	3	2	4	3
N 838 N3-05 DO YOU USE OR REFER TO PULSE RECURRENT FREQUENCY	2	4	3	2	4	3
N 839 N3-06 DO YOU USE OR REFER TO DIFFERENTIATING CIRCUITS	0	0	0	0	4	0
N 840 N3-07 DO YOU USE OR REFER TO INTEGRATING CIRCUITS	0	0	0	0	5	0
N 841 N3-08 DO YOU USE OR REFER TO THE CLASSIFICATION OF TIME	0	0	0	0	4	3
N 842 N3-09 DO YOU DETERMINE WHETHER AN LR OR RC CIRCUIT IS	0	0	0	0	4	0
N 843 N3-10 DO YOU WORK WITH SQUARE WAVE GENERATORS	2	2	2	0	0	0
N 844 N3-11 DO YOU WORK WITH RECTANGULAR WAVE GENERATORS	2	1	1	0	0	0
N 845 N3-12 DO YOU WORK ON SINGLE SIDEBAND SYSTEMS IN YOUR	0	0	0	0	0	0
O 846 N1-02 DO YOU INSPECT SSR TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0
O 847 N1-03 DO YOU CLEAN SSR TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0
O 848 N1-04 DO YOU ALIGN SSR TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0
O 849 N1-05 DO YOU TROUBLESHOOT TO SSR TRANSMIT OR RECEIVE	0	0	0	0	0	0
O 850 N1-06 DO YOU TROUBLESHOOT TO SSR TRANSMIT OR RECEIVE	0	0	0	0	0	0
O 851 N1-07 DO YOU REMOVE OR REPLACE SSR TRANSMIT OR RECEIVE	0	0	0	0	0	0
O 852 N1-08 DO YOU REMOVE OR REPLACE SSR TRANSMIT OR RECEIVE	0	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK		SPL 004	SPL 007	SPL 008	SPL 009	SPL Q10	SPL Q11
0 453	01-09 DO YOU PERFORM TASKS ON SSR AUDIO AMPLIFIERS	0	0	0	0	0	0
0 454	01-10 DO YOU PERFORM TASKS ON SSR BALANCED MODULATORS	0	0	0	0	0	0
0 455	01-11 DO YOU PERFORM TASKS ON SSR CARRIER OSCILLATORS	0	0	0	0	0	0
0 456	01-12 DO YOU PERFORM TASKS ON SSR LC FILTERS	0	0	0	0	0	0
0 457	01-13 DO YOU PERFORM TASKS ON SSR CRYSTAL FILTERS	0	0	0	0	0	0
0 458	01-14 DO YOU PERFORM TASKS ON SSR MECHANICAL FILTERS	0	0	0	0	0	0
0 459	01-15 DO YOU PERFORM TASKS ON SSR OSCILLATORS	0	0	0	0	0	0
0 460	01-16 DO YOU PERFORM TASKS ON SSR MIXERS	0	0	0	0	0	0
0 461	01-17 DO YOU PERFORM TASKS ON SSR DRIVERS	0	0	0	0	0	0
0 462	01-18 DO YOU PERFORM TASKS ON SSR POWER AMPLIFIERS	0	0	0	0	0	0
0 463	01-19 DO YOU PERFORM TASKS ON SSR RF AMPLIFIERS	0	0	0	0	0	0
0 464	01-20 DO YOU PERFORM TASKS ON SSR FREQUENCY CONVERTERS	0	0	0	0	0	0
0 465	01-21 DO YOU PERFORM TASKS ON SSR IF AMPLIFIERS	0	0	0	0	0	0
0 466	01-22 DO YOU PERFORM TASKS ON SSR DEMODULATORS	0	0	0	0	0	0
0 467	01-23 DO YOU PERFORM TASKS ON SSR DON'T REMEMBER WHICH SSR	0	0	0	0	0	0
SYSTEM STAGES							
0 468	01-24 DO YOU USE OR REFER TO SELECTIVE FADING	0	0	0	0	0	0
0 469	01-25 DO YOU USE OR REFER TO PEAK POWER	0	0	0	0	0	0
0 470	01-26 DO YOU USE OR REFER TO FREQUENCY STABILITY	0	0	0	0	0	0
0 471	01-27 DO YOU USE OR REFER TO RESPONSE CURVES FOR	0	0	0	0	0	0
BANDWIDTH FILTERS							
0 472	01-28 DO YOU CALCULATE PEAK POWER OR EFFECTIVE POWER OF SSR	0	0	0	0	0	0
TRANSMITTERS							
0 473	01-29 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSR	0	0	0	0	0	0
TRANSMITTER SCHEMATIC DIAGRAMS							
0 474	01-30 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSR	0	0	0	0	0	0
RECEIVER SCHEMATIC DIAGRAMS							
0 475	02-01 DO YOU WORK ON PULSE MODULATION SYSTEMS IN YOUR	0	0	0	0	0	3
PRESENT JOB							
0 476	02-02 DO YOU INSPECT PULSE MODULATION SYSTEMS	0	0	0	0	0	3
0 477	02-03 DO YOU CLEAN PULSE MODULATION SYSTEMS	0	0	0	0	0	0
0 478	02-04 DO YOU ALIGN PULSE MODULATION SYSTEMS	0	0	0	0	0	0
0 479	02-05 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEMS	0	0	0	0	0	3
0 480	02-06 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEM	0	0	0	0	0	0
COMPONENTS							
0 481	02-07 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEMS	0	0	0	0	0	0
0 482	02-08 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEM	0	0	0	0	0	0
COMPONENTS							
0 483	02-09 DO YOU WORK ON PULSE-AMPLITUDE MODULATION (PAM)	0	0	0	0	0	3
SYSTEMS							
0 484	02-10 DO YOU WORK ON PULSE-DURATION MODULATION (PDM)	0	0	0	0	0	3
SYSTEMS							
0 485	02-11 DO YOU WORK ON PULSE-POSITION MODULATION (PPM)	0	0	0	0	0	0
SYSTEMS							
0 486	02-12 DO YOU WORK ON PULSE-CODE MODULATION (PCM) SYSTEMS	0	0	0	0	0	3
0 487	02-13 DO YOU WORK ON LINE PULSING MODULATION SYSTEMS	0	0	0	0	0	0
0 488	02-14 DO YOU WORK ON DON'T REMEMBER WHICH TYPE OF	0	0	0	0	0	0
MODULATION SYSTEM							

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

Division

SPL SPL SPL SPL SPL SPL
006 007 008 009 010 011

0 889 02-15 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER SUPPLIES	0	0	0	0	0	0	0	0	0
0 890 02-16 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM CHARGING CHOKES AND CHARGING DIODES	0	0	0	0	0	0	0	0	0
0 891 02-17 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE FORMING NETWORKS	0	0	0	0	0	0	0	0	3
0 892 02-18 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TIMERS	0	0	0	0	0	0	0	0	0
0 893 02-19 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM SWITCHES SUCH AS GAS THYRATRODS	0	0	0	0	0	0	0	0	0
0 894 02-20 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE TRANSFORMERS	0	0	0	0	0	0	0	0	0
0 895 02-21 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TRANSMITTER TUBES	0	0	0	0	0	0	0	0	0
0 896 02-22 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM AF AMPLIFIERS	0	0	0	0	0	0	0	0	3
0 897 02-23 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM FREQUENCY CONVERTERS	0	0	0	0	0	0	0	0	0
0 898 02-24 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM IF AMPLIFIERS	0	0	0	0	0	0	0	0	3
0 899 02-25 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM DETECTORS	0	0	0	0	0	0	0	0	0
0 900 02-26 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM VIDEO AMPLIFIERS	0	0	0	0	0	0	0	0	0
0 901 02-27 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER VIDEO AMPLIFIERS	0	0	0	0	0	0	0	0	0
0 902 02-28 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM DON'T REMEMBER WHICH PULSE MODULATION SYSTEM STAGES	0	0	0	0	0	0	0	0	0
0 903 02-29 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF)	0	0	0	0	0	0	0	0	3
0 904 02-30 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)	0	0	0	0	0	0	0	0	3
0 905 02-31 DO YOU USE OR REFER TO PULSE WIDTH (PW)	0	0	0	0	0	0	0	0	3
0 906 02-32 DO YOU USE OR REFER TO PULSE SHAPE	0	0	0	0	0	0	0	0	3
0 907 02-33 DO YOU USE OR REFER TO PEAK POWER	0	0	0	0	0	0	0	0	3
0 908 02-34 DO YOU USE OR REFER TO AVERAGE POWER	0	0	0	0	0	0	0	0	3
0 909 02-35 DO YOU CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)	0	0	0	0	0	0	0	0	0
0 910 02-36 DO YOU MEASURE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)	0	0	0	0	0	0	0	0	3
0 911 02-37 DO YOU USE FORMULAS TO CALCULATE AVERAGE POWER OR PEAK POWER OF PULSE MODULATION TRANSMIT SYSTEMS	0	0	0	0	0	0	0	0	3
0 912 02-38 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION TRANSMITTER SCHEMATIC DIAGRAMS	0	0	0	0	0	0	0	0	3
0 913 02-39 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION RECEIVER SCHEMATIC DIAGRAMS	0	0	0	0	0	0	0	0	3
0 914 03-01 DO YOU WORK WITH ANTENNAS IN YOUR PRESENT JOB	43	37	39	16	11	11	20	20	20
0 915 03-02 DO YOU INSPECT ANTENNAS	41	37	39	20	11	20	20	20	20

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
0 916 03-03 DO YOU CLEAN ANTENNAS	41	35	37	20	11	14
0 917 03-04 DO YOU PHYSICALLY ALIGN ANTENNAS	25	23	23	9	4	6
0 918 03-05 DO YOU ELECTRICALLY ALIGN ANTENNAS	2	10	7	0	4	3
0 919 03-06 DO YOU TROUBLESHOOT TO ANTENNAS	13	9	10	5	7	11
0 920 03-07 DO YOU TROUBLESHOOT TO ANTENNA COMPONENTS	4	3	3	5	4	0
0 921 03-08 DO YOU REMOVE OR INSTALL ANTENNAS	38	34	35	20	11	14
0 922 03-09 DO YOU REMOVE OR REPLACE COMPONENTS OF ANTENNAS	11	15	13	5	4	9
0 923 03-10 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF E OR ELECTRIC FIELD LINES	0	2	1	0	0	0
0 924 03-11 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF H OR MAGNETIC FIELD LINES	0	1	1	0	0	0
0 925 03-12 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES IN RELATION TO THE ELECTRIC LINES OF FORCE FOR ANTENNAS	0	0	0	0	0	0
0 926 03-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE OF CORRECT LENGTH (HALF-WAVE) ACT AS	0	0	0	0	0	0
0 927 03-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE LONGER THAN A HALF-WAVE ACT AS INDUCTIVE LOADS	0	0	0	0	0	0
0 928 03-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE SHORTER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS	0	0	0	0	0	0
0 929 03-16 DO YOU WORK WITH HERTZ ANTENNAS	5	0	2	2	0	0
0 930 03-17 DO YOU WORK WITH MARCONI ANTENNAS	0	0	0	0	0	0
0 931 03-18 DO YOU WORK WITH PROSINE ARRAYS	0	2	1	2	0	0
0 932 03-19 DO YOU WORK WITH END-FIRE ARRAYS	0	2	1	2	0	0
0 933 03-20 DO YOU WORK WITH CAROTON ARRAYS	0	0	0	0	0	0
0 934 03-21 DO YOU WORK WITH COLLINER ARRAYS	4	1	2	0	0	0
0 935 03-22 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC INDUCTION FIELDS WHEN WORKING WITH ANTENNAS	0	0	0	0	0	3
0 936 03-23 DO YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF ANTENNAS	0	0	0	0	0	3
0 937 03-24 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC RADIATION FIELDS WHEN WORKING WITH ANTENNAS	0	0	0	2	0	6
0 938 03-25 DO YOU MEASURE ELECTROMAGNETIC RADIATION FIELDS OF ANTENNAS	0	0	0	0	0	3
0 939 03-26 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA RADIATION	0	0	0	0	0	0
0 940 03-27 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA INDUCTION FIELD	0	0	0	0	0	0
0 941 03-28 ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY POLARIZED	5	7	6	0	0	5
0 942 03-29 ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY POLARIZED	5	5	5	2	0	6
0 943 03-30 DO YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS YOU WORK ON	0	1	1	2	0	0
0 944 03-31 DO YOU CONSTRUCT, OR MAKE THE CALCULATIONS NECESSARY TO CONSTRUCT, ANTENNAS OF CORRECT LENGTH FOR	2	0	1	0	0	0

PCT HRS PERK TASKS BY ARMS GRPS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

0Y-TSK

SPL SPL SPL SPL SPL
006 007 008 009 010 011

P 471 P1-19 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED
TO LOADS USING MATCHING TRANSFORMERS
P 472 P1-20 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED
TO LOADS USING DELTA MATCHING
P 473 P1-21 DO YOU SELECT THE TYPE OF TRANSMISSION LINE NEEDED
FOR PARTICULAR JOBS WITHOUT REFERRING TO TECHNICAL DATA
P 474 P1-22 DO YOU USE OR REFER TO THE TERM CHARACTERISTIC
IMPEDANCE (Z0) OF TRANSMISSION LINES
P 475 P1-23 DO YOU CALCULATE THE CHARACTERISTIC IMPEDANCE (Z0) OF
TRANSMISSION LINES
P 476 P1-24 DO YOU USE OR REFER TO THE TERM CUTOFF FREQUENCY OF
TRANSMISSION LINES
P 477 P1-25 DO YOU USE OR REFER TO THE TERM VELOCITY FACTOR (K)
OF TRANSMISSION LINES
P 478 P1-26 DO YOU COMPUTE THE ELECTRICAL LENGTH OF TRANSMISSION
LINES FOR PARTICULAR FREQUENCIES
P 479 P1-27 DO YOU CONSTRUCT TRANSMISSION LINES OF PARTICULAR
ELECTRICAL LENGTH FOR GIVEN FREQUENCIES
P 480 P1-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT AS THE
FREQUENCY INCREASES AND THE PHYSICAL LENGTH OF
P 481 P1-29 DO YOU WORK WITH NONRESONANT (FLAT) TRANSMISSION
LINES
P 482 P1-30 DO YOU WORK WITH RESONANT TRANSMISSION LINES
P 483 P1-31 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED
TO LOADS USING STUB MATCHING
P 484 P2-01 DO YOU WORK WITH WAVEGUIDES OR CAVITY RESONATORS IN
YOUR PRESENT JOB
P 485 P2-02 DO YOU INSPECT WAVEGUIDES OR CAVITY RESONATORS
P 486 P2-03 DO YOU CLEAN WAVEGUIDES OR CAVITY RESONATORS
P 487 P2-04 DO YOU BEND WAVEGUIDES OR CAVITY RESONATORS
P 488 P2-05 DO YOU TWIST WAVEGUIDES OR CAVITY RESONATORS
P 489 P2-06 DO YOU PRESSURIZE WAVEGUIDES OR CAVITY RESONATORS
P 490 P2-07 DO YOU PURGE WAVEGUIDES OR CAVITY RESONATORS
P 491 P2-08 DO YOU TROUBLESHOOT WAVEGUIDES OR CAVITY RESONATORS
P 492 P2-09 DO YOU REMOVE OR INSTALL COMPLETE WAVEGUIDES
P 493 P2-10 DO YOU REMOVE OR INSTALL WAVEGUIDE SECTIONS
P 494 P2-11 DO YOU REMOVE OR INSTALL DUMMY LOADS
P 495 P2-12 DO YOU REMOVE OR INSTALL E BENDS
P 496 P2-13 DO YOU REMOVE OR INSTALL M BENDS
P 497 P2-14 DO YOU REMOVE OR INSTALL OTHER BENDS
P 498 P2-15 DO YOU REMOVE OR INSTALL CHOKES JOINTS
P 499 P2-16 DO YOU REMOVE OR INSTALL ROTATING JOINTS
P1000 P2-17 DO YOU REMOVE OR INSTALL DIRECTIONAL COUPLERS
P1001 P2-18 DO YOU REMOVE OR INSTALL BIDIRECTIONAL COUPLERS
P1002 P2-19 DO YOU USE OR REFER TO "A" WALL OF WAVEGUIDES

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DT-13A

	SPL	SPL	SPL	SPL	SPL	SPL
	006	007	008	009	010	011
P1003 P2-20 DO YOU USE OR REFER TO "A" WALL OF WAVEGUIDES	1	0	0	0	0	0
P1004 P2-21 DO YOU USE OR REFER TO CUTOFF FREQUENCY OF WAVEGUIDES	2	0	1	0	4	0
P1005 P2-22 DO YOU USE OR REFER TO FREQUENCY-DETERMINING WALL OF WAVEGUIDES	0	0	0	0	0	0
P1006 P2-23 DO YOU USE OR REFER TO POWER-DETERMINING WALL OF WAVEGUIDES	0	1	1	0	0	0
P1007 P2-24 DO YOU USE OR REFER TO ELECTRIC FIELD BOUNDARY CONDITIONS	0	0	0	0	0	0
P1008 P2-25 DO YOU USE OR REFER TO MAGNETIC FIELD BOUNDARY CONDITIONS	0	0	0	0	0	0
P1009 P2-26 DO YOU USE OR REFER TO DIAPHRAGM FIELD BOUNDARY CONDITIONS	0	0	0	0	0	0
P1010 P2-27 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST WAVEGUIDES ARE MADE WITH A "B" WALL SIZE OF .7 WAVELENGTHS	0	0	0	0	0	0
P1011 P2-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST "A" WALLS RANGE FROM .2 TO .5 WAVELENGTHS IN SIZE, WITH .35	0	0	0	0	0	0
P1012 P2-29 ARE YOU CONCERNED WITH THE MATERIAL (SUCH AS BRASS) WHICH WAVEGUIDES ARE MADE OF	0	2	1	0	4	0
P1013 P2-30 DO YOU COMPUTE THE LENGTH OF A WAVEGUIDE FOR SPECIFIC INSTALLATION	0	0	0	0	0	0
P1014 P2-31 DO YOU USE THE RIGHT HAND RULE TO DETERMINE THE DIRECTION OF PROPAGATION, DIRECTION OF "E" FIELD, OR	0	0	0	0	0	0
P1015 P2-32 DO YOU USE OR REFER TO THE TIME PHASE OF PEAK "E" OR "H" LINES IN WAVEGUIDES	0	0	0	0	0	0
P1016 P2-33 DO YOU MEASURE THE TIME PHASE OF "E" OR "H" LINES IN WAVEGUIDES	0	0	0	0	0	0
P1017 P2-34 DO YOU USE OR REFER TO THE SPACE QUADRATURE OF "E" OR "H" LINES IN WAVEGUIDES	0	0	0	0	0	0
P1018 P2-35 ARE HIGH POWER PROBES USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	0	0	0	0	0	0
P1019 P2-36 ARE LOW POWER PROBES USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	0	1	1	0	0	0
P1020 P2-37 ARE LOOPS USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	0	1	1	0	0	0
P1021 P2-38 ARE APERTURES (WINDOWS OR RISERS) USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	13	9	10	9	11	3
P1022 P2-39 ARE DONUT REMEMBERS THE KIND OF ENERGY COUPLING USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	5	4	4	2	11	9
P1023 P2-40 DO YOU DETERMINE WHERE PROBES SHOULD BE MOUNTED IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO	0	0	0	0	0	0
P1024 P2-41 DO YOU DETERMINE THE POSITIONING OF LOOPS IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO	0	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
PI025 P2-42 DO YOU DETERMINE THE POSITIONING OR SIZE OF APERTURES IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO	0	0	0	0	0	0
PI026 P2-43 ARE CHOKE JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	0	0	0	2	0	3
PI027 P2-44 ARE ROTATING JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	0	0	0	2	0	0
PI028 P2-45 ARE DON'T REMEMBER THE KIND OF JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH	4	10	8	2	7	9
PI029 P2-46 DO YOU TUNE CAVITY RESONATORS USING CAPACITIVE TUNING	0	0	0	2	4	0
PI030 P2-47 DO YOU TUNE CAVITY RESONATORS USING INDUCTIVE TUNING	0	0	0	0	4	3
PI031 P2-48 DO YOU TUNE CAVITY RESONATORS USING VOLUME TUNING	0	2	1	0	4	0
PI032 P2-49 DO YOU TUNE CAVITY RESONATORS USING DON'T REMEMBER THE METHOD OF TUNING	2	5	4	0	0	6
PI033 P2-50 DO YOU MEASURE THE FREQUENCY OF SIGNALS IN CAVITY RESONATORS	0	2	1	0	0	3
PI034 P3-01 IN YOUR PRESENT JOB DO YOU WORK WITH KLYSTRONS, TRAVELING WAVE TUBES (TWT), PARAMETRIC AMPLIFIERS, OR	4	7	6	0	7	3
PI035 P3-02 DO YOU USE OR REFER TO INTERELECTRODE CAPACITANCE	0	1	1	0	0	3
PI036 P3-03 DO YOU USE OR REFER TO ELECTRON TRANSIT TIME	0	1	1	0	0	0
PI037 P3-04 DO YOU USE OR REFER TO LEAD INDUCTANCE	0	1	1	0	0	0
PI038 P3-05 DO YOU USE OR REFER TO RF LOSSES IN EXTERNAL CIRCUITRY	0	3	2	0	0	3
PI039 P3-06 DO YOU USE OR REFER TO PRINCIPLE OF ELECTRON VELOCITY MODULATION	0	0	0	0	0	0
PI040 P3-07 DO YOU USE OR REFER TO ELECTRON BUNCHING	0	0	0	0	0	0
PI041 P3-08 DO YOU WORK WITH TWO-CAVITY KLYSTRONS	0	1	1	0	0	0
PI042 P3-09 DO YOU WORK WITH THREE-CAVITY KLYSTRONS	0	2	1	0	0	0
PI043 P3-10 DO YOU WORK WITH REFLEX KLYSTRONS	4	2	2	0	4	3
PI044 P3-11 DO YOU WORK WITH TRAVELING-WAVE TUBES (TWT)	2	0	1	0	0	0
PI045 P3-12 DO YOU WORK WITH NONDEGENERATIVE PARAMETRIC AMPLIFIERS	0	0	0	0	0	0
PI046 P3-13 DO YOU WORK WITH UP-CONVERTER PARAMETRIC AMPLIFIERS	0	0	0	0	0	0
PI047 P3-14 DO YOU WORK WITH MAGNETRONS	0	0	0	0	0	0
PI048 P3-15 DO YOU INSPECT KLYSTRONS OR TWT	4	1	2	0	0	3
PI049 P3-16 DO YOU CLEAN KLYSTRONS OR TWT	2	0	1	0	0	0
PI050 P3-17 DO YOU TUNE KLYSTRONS OR TWT ELECTRICALLY	2	3	2	0	0	0
PI051 P3-18 DO YOU TUNE KLYSTRONS OR TWT MECHANICALLY	2	4	3	0	0	0
PI052 P3-19 DO YOU PERFORM OPERATIONAL CHECKS OF KLYSTRONS OR TWT	4	2	2	0	0	0
PI053 P3-20 DO YOU TROUBLESHOOT KLYSTRONS OR TWT	0	0	0	0	0	0
PI054 P3-21 DO YOU REMOVE OR REPLACE COMPLETE KLYSTRON OR TWT	2	1	1	0	0	0
PI055 P3-22 DO YOU REMOVE OR REPLACE KLYSTRON OR TWT COMPONENTS	2	0	1	0	0	0
PI056 P3-23 DO YOU INSPECT PARAMETRIC AMPLIFIERS	0	0	0	0	0	0
PI057 P3-24 DO YOU CLEAN PARAMETRIC AMPLIFIERS	0	0	0	0	0	0
PI058 P3-25 DO YOU ADJUST PARAMETRIC AMPLIFIERS	0	0	0	0	0	0

PERCENT MEMBERS PERFORMING

DY-TSK

SPL SPL SPL SPL SPL SPL
006 007 008 009 010 011

P1059 P3-26 DO YOU TUNE PARAMETRIC AMPLIFIERS	0	0	0	0	0	0
P1060 P3-27 DO YOU PERFORM OPERATIONAL CHECKS OF PARAMETRIC AMPLIFIERS	0	0	0	0	0	0
P1061 P3-28 DO YOU TROUBLESHOOT PARAMETRIC AMPLIFIERS	0	0	0	0	0	0
P1062 P3-29 DO YOU REMOVE OR REPLACE COMPLETE PARAMETRIC AMPLIFIER	0	0	0	0	0	0
P1063 P3-30 DO YOU REMOVE OR REPLACE PARAMETRIC AMPLIFIER COMPONENTS	0	0	0	0	0	0
P1064 P3-31 DO YOU INSPECT MAGNETRONS	0	0	0	0	0	0
P1065 P3-32 DO YOU CLEAN MAGNETRONS	0	0	0	0	0	0
P1066 P3-33 DO YOU ADJUST MAGNETRONS	0	0	0	0	0	0
P1067 P3-34 DO YOU TUNE MAGNETRONS	0	0	0	0	0	0
P1068 P3-35 DO YOU PERFORM OPERATIONAL CHECKS OF MAGNETRONS	0	0	0	0	0	0
P1069 P3-36 DO YOU TROUBLESHOOT MAGNETRONS	0	0	0	0	0	0
P1070 P3-37 DO YOU REMOVE OR REPLACE COMPLETE MAGNETRON	0	0	0	0	0	0
P1071 P3-38 DO YOU REMOVE OR REPLACE MAGNETRON COMPONENTS	0	0	0	0	0	0
P1072 P3-39 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS COLLECTOR PLATES	0	0	0	0	0	0
P1073 P3-40 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CATCHER CAVITIES	0	0	0	0	0	0
P1074 P3-41 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CATCHER GRIDS	0	0	0	0	0	0
P1075 P3-42 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS FEEDBACK LOOPS	0	1	1	0	0	0
P1076 P3-43 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS DRIFT SPACES	0	0	0	0	0	0
P1077 P3-44 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS ANCHER GRIDS	0	0	0	0	0	0
P1078 P3-45 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS ANCHER CAVITIES	0	0	0	0	0	0
P1079 P3-46 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CONTROL GRIDS	0	0	0	0	0	0
P1080 P3-47 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CATHODES	0	0	0	0	0	0
P1081 P3-48 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON REFLECTOR (REFLECTOR) PLATES	0	1	1	0	4	3
P1082 P3-49 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRIDS	0	1	1	0	4	3
P1083 P3-50 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID CAVITY GAPS	2	0	1	0	0	3
P1084 P3-51 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON RESONANT CAVITIES	2	1	1	0	4	3
P1085 P3-52 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON MAGNETIC COUPLING LOOPS	0	0	0	0	0	0
P1086 P3-53 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON FILAMENTS	0	1	1	0	4	0
P1087 P3-54 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON CATHODES	0	0	0	0	4	0

PCT HRS PERFORM TASKS BY ARMS GRPS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
PI088 P3-55 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON OUTPUT LEADS	2	0	1	0	4	3
PI089 P3-56 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES FILAMENTS	0	0	0	0	0	0
PI090 P3-57 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES CATHODES	0	0	0	0	0	0
PI091 P3-58 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES MODULATOR GRIDS	0	0	0	0	0	0
PI092 P3-59 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES ANODES	0	0	0	0	0	0
PI093 P3-60 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES HELICES	0	0	0	0	0	0
PI094 P3-61 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES COLLECTORS	0	0	0	0	0	0
PI095 P3-62 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES MAGNETS	0	0	0	0	0	0
PI096 P3-63 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELING-WAVE TUBES ATTENUATORS	0	0	0	0	0	0
PI097 P3-64 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE CIRCULATORS	0	0	0	0	0	0
PI098 P3-65 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER SIGNAL CAVITIES	0	0	0	0	0	0
PI099 P3-66 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER IDLER CAVITIES	0	0	0	0	0	0
PI100 P3-67 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER VARACTOR DIODES	0	0	0	0	0	0
PI101 P3-68 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE ISOLATORS	0	0	0	0	0	0
PI102 P3-69 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER REVERSE-BIAS BATTERIES	0	0	0	0	0	0
PI103 P3-70 DO YOU PERFORM TASKS ON ANODES	0	0	0	0	0	0
PI104 P3-71 DO YOU PERFORM TASKS ON ANODE COOLING PINS	0	0	0	0	0	0
PI105 P3-72 DO YOU PERFORM TASKS ON COUPLING LOOPS	0	0	0	0	0	0
PI106 P3-73 DO YOU PERFORM TASKS ON HEATER LEADS	0	0	0	0	0	0
PI107 P3-74 DO YOU PERFORM TASKS ON RESONANT CAVITIES	0	0	0	0	0	0
PI108 P3-75 DO YOU PERFORM TASKS ON CATHODES	0	0	0	0	0	0
PI109 P3-76 DO YOU PERFORM TASKS ON MAGNETS	0	0	0	0	0	0
Q110 Q1-01 DO YOU USE OR REFER TO STORAGE REGISTERS	0	0	0	0	0	0
Q111 Q1-02 DO YOU USE OR REFER TO SHIFT REGISTERS	0	1	1	0	0	0
Q112 Q1-03 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT REGISTERS	0	0	0	0	0	0
Q113 Q1-04 DO YOU USE OR REFER TO LOGIC SYMBOLS OF STORAGE REGISTERS	0	0	0	0	0	0
Q114 Q1-05 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS	0	2	1	0	0	0
Q115 Q1-06 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF REGISTERS	0	1	1	0	0	0

PERCENT MEMBERS PERFORMING

DY-TSK

SPL SPL SPL SPL SPL SPL
006 007 008 009 010 011

01119	01-07 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES	0	5	3	0	0	0
01117	02-01 DO YOU WORK WITH DIGITAL COUNTERS, REGISTERS, OR STORAGE DEVICES IN YOUR PRESENT JOB	5	5	5	5	4	0
01118	02-02 DO YOU USE OR REFER TO DELAY LINES	0	0	0	0	0	0
01119	02-03 DO YOU USE OR REFER TO MAGNETIC CORES	0	0	0	0	0	0
01120	02-04 DO YOU USE OR REFER TO MAGNETIC DRUMS	0	0	0	0	0	0
01121	02-05 DO YOU USE OR REFER TO MAGNETIC TAPES	0	0	0	0	0	0
01122	02-06 DO YOU USE OR REFER TO ACCESS TIME OR SPEED OR MEMORY SYSTEMS	2	1	1	0	0	0
01123	02-07 DO YOU USE OR REFER TO WORD CAPACITY OF MEMORY SYSTEMS	0	0	0	0	0	0
01124	02-08 DO YOU USE OR REFER TO VOLATILITY OF MEMORY SYSTEMS	0	0	0	0	0	0
01125	02-09 DO YOU USE OR REFER TO LOGIC SYMBOL OF DELAY LINES	0	0	0	0	0	0
01126	03-01 IN YOUR PRESENT JOB, DO YOU WORK WITH DIGITAL-TO-ANALOG (D/A) CONVERTERS, ANALOG-TO-DIGITAL (A/D) CONVERTERS, ANALOG (D/A) CONVERTERS FOR GIVEN INPUT	0	0	0	0	0	0
01127	03-02 DO YOU COMPUTE OUTPUT VOLTAGES FOR ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS FOR GIVEN INPUT	0	0	0	0	0	0
01128	03-03 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE COUNT IN ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) COUNTS IN ELECTRONIC DIGITAL-TO-ANALOG (D/A) CONVERTERS	0	0	0	0	0	0
01129	03-04 DO YOU COMPUTE ANALOG VOLTAGES FOR GIVEN BINARY COUNTS IN ELECTRONIC DIGITAL-TO-ANALOG (D/A) CONVERTERS	0	0	0	0	0	0
01130	03-05 DO YOU PERFORM SAMPLE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	0	0	0	0	0	0
01131	03-06 DO YOU PERFORM HOLD FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	0	0	0	0	0	0
01132	03-07 DO YOU PERFORM COMPARE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	0	0	0	0	0	0
01133	03-08 DO YOU PERFORM DIGITIZE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	0	0	0	0	0	0
01134	03-09 DO YOU PERFORM COUNT REMEMBER WHICH FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER	0	0	0	0	0	3
01135	03-10 DO YOU USE OR REFER TO SAMPLE FUNCTION OF A/D CONVERTERS	0	0	0	0	0	0
01136	03-11 DO YOU USE OR REFER TO HOLD FUNCTION OF A/D CONVERTERS	0	0	0	0	0	0
01137	03-12 DO YOU USE OR REFER TO COMPARE FUNCTION OF A/D CONVERTERS	0	0	0	0	0	0
01138	03-13 DO YOU USE OR REFER TO DIGITAL FUNCTION OF A/D CONVERTERS	0	0	0	0	0	0
01139	03-14 DO YOU PERFORM ANY TASKS ON MECHANICAL ANALOG-TO-DIGITAL (A/D) CONVERTERS	0	0	0	0	0	0

AD-A047 546

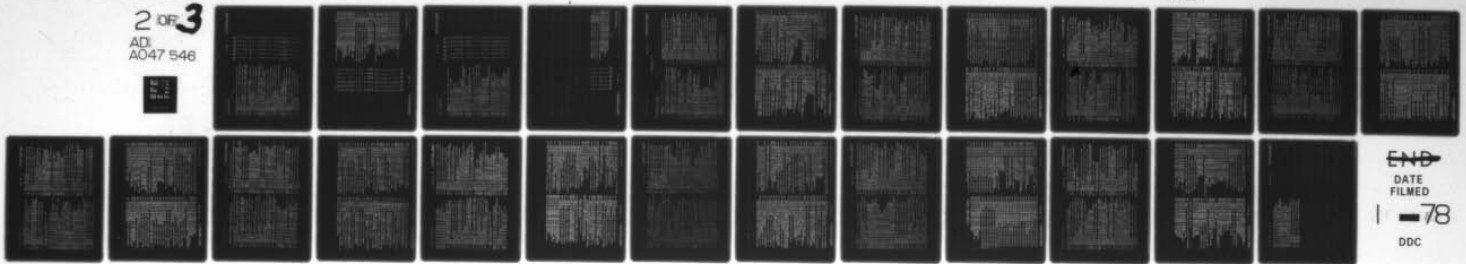
AIR FORCE OCCUPATIONAL MEASUREMENT CENTER LACKLAND A--ETC F/G 5/9
ELECTRONICS PRINCIPLES OVERSEAS SUPPLEMENT TO THE MISSILE MAINT--ETC(U)
MAY 77

UNCLASSIFIED

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CONT.

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
RT140 RT-01 DO YOU WORK WITH PHANTASTRON CIRCUITRY IN YOUR PRESENT JOB	0	1	1	0	0	0
RT141 RT-01 IN YOUR PRESENT JOB DO YOU WORK WITH SCHMITT TRIGGER CIRCUITS	0	0	0	0	0	0
RT142 RT-02 DO YOU TRACE DATA FLOW THROUGH SCHMITT TRIGGER SCHEMATIC DIAGRAMS	0	0	0	0	0	0
RT143 RT-03 DO YOU USE OR REFER TO SCHMITT TRIGGER LOGIC SYMBOLS	0	0	0	0	0	0
RT144 RT-01 IN YOUR PRESENT JOB DO YOU FABRICATE MULTICONDUCTOR CABLES	4	7	6	7	7	9
RT145 RT-02 DO YOU FABRICATE COAXIAL CABLES	11	15	14	14	21	23
ST146 ST-01 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS ON VISUAL READOUT SYSTEMS	18	15	16	11	4	6
ST147 ST-02 DO YOU PERFORM ANY TASKS ON NIXIE LIGHTS OR NIXIE LIGHT DECODER SYSTEMS	4	1	2	2	0	3
ST148 ST-03 DO YOU ANALYZE NIXIE LIGHT DECODER SYSTEMS USING BOOLEAN ALGEBRA	0	0	0	0	0	0
ST149 ST-01 DO YOU WORK WITH PHOTO TUBES IN YOUR PRESENT JOB	2	1	1	5	4	3
ST150 ST-01 IN YOUR PRESENT JOB DO YOU WORK WITH CHOPPER CIRCUITS	0	0	0	2	0	0
ST151 ST-02 DO YOU MEASURE EXCITATION FREQUENCIES	0	0	0	0	0	0
ST152 ST-03 DO YOU MEASURE VOLTAGE-CURRENT PHASE RELATIONSHIPS	0	0	0	0	0	0
ST153 ST-04 DO YOU USE OR REFER TO EXCITATION FREQUENCIES	0	0	0	0	0	0
ST154 ST-05 DO YOU USE OR REFER TO VOLTAGE-CURRENT PHASE RELATIONSHIPS	0	0	0	0	0	0
ST155 ST-06 DO YOU USE SERVOS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	0	0	0	2	0	0
ST156 ST-07 DO YOU USE DETECTORS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	0	0	0	2	0	0
ST157 ST-08 DO YOU USE ERROR SIGNAL DEVICES IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	0	0	0	2	0	0
ST158 ST-09 DO YOU USE COMPARISON CIRCUITS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	0	0	0	2	0	0
TI159 TI-01 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH INFRARED SYSTEMS	43	44	43	25	39	40
TI160 TI-02 DO YOU INSPECT INFRARED SYSTEMS	36	40	37	14	32	34
TI161 TI-03 DO YOU CLEAN INFRARED SYSTEMS	34	32	31	14	25	31
TI162 TI-04 DO YOU ADJUST OR CALIBRATE INFRARED SYSTEMS	23	22	22	9	25	11
TI163 TI-05 DO YOU OPERATE INFRARED SYSTEMS	25	35	31	11	36	17
TI164 TI-06 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF INFRARED SYSTEMS	9	12	10	7	18	6
TI165 TI-07 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF INFRARED SYSTEMS	9	17	14	9	21	17
TI166 TI-08 DO YOU TROUBLESHOOT DOWN TO INFRARED SYSTEM COMPONENT PARTS	5	5	5	5	7	3
TI167 TI-09 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF INFRARED SYSTEMS	18	14	15	9	25	20
TI168 TI-10 DO YOU REMOVE OR REPLACE INFRARED SYSTEM COMPONENT PARTS	5	4	4	5	7	3

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

PERCENT MEMBERS PERFORMING

DY-T5A

SPL	SPL	SPL	SPL	SPL
006	007	008	009	010

006 007 008 009 010 011

11169	11-11	DO YOU USE OR REFER TO FAR REGION	2	1	1	0	4	4	0
11170	11-12	DO YOU USE OR REFER TO INTERMEDIATE REGION	2	1	1	0	4	0	0
11171	11-13	DO YOU USE OR REFER TO NEAR REGION	4	1	2	0	4	0	0
11172	11-14	DO YOU USE OR REFER TO MICRON	2	1	1	0	4	0	0
11173	11-15	DO YOU USE OR REFER TO GRAY BODIES	2	0	1	0	4	0	0
11174	11-16	DO YOU USE OR REFER TO BLACK BODIES	2	1	1	0	7	6	0
11175	11-17	DO YOU USE OR REFER TO ABSORPTION	2	1	2	0	7	0	0
11176	11-18	DO YOU USE OR REFER TO SCATTERING	2	1	2	0	4	0	0
11177	11-19	DO YOU USE OR REFER TO ABSOLUTE ZERO	0	1	1	0	0	0	0
11178	11-20	DO YOU PERFORM TASKS ON ALTITUDE	0	0	0	0	0	0	0
11179	11-21	DO YOU PERFORM TASKS ON TARGET BUTTONS	0	0	0	0	4	0	0
11180	11-22	DO YOU PERFORM TASKS ON FOCAL LENGTHS	0	0	0	0	4	0	0
11181	11-23	DO YOU PERFORM TASKS ON OCULAR LENSES	0	3	2	0	4	0	0
11182	11-24	DO YOU PERFORM TASKS ON CORRECTION LENSES	0	1	1	0	4	0	0
11183	11-25	DO YOU PERFORM TASKS ON FILTERS	2	1	1	0	4	0	0
11184	11-26	DO YOU PERFORM TASKS ON SPHERICAL MIRRORS	2	2	2	2	7	3	3
11185	11-27	DO YOU PERFORM TASKS ON PLANE MIRRORS	0	1	1	2	7	3	3
11186	12-01	DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH	32	33	31	25	11	26	11
LASERS									
11187	12-02	DO YOU INSPECT LASER SYSTEMS	25	31	28	18	11	4	20
11188	12-03	DO YOU CLEAN LASER SYSTEMS	25	25	24	14	4	14	4
11189	12-04	DO YOU OPERATE LASER SYSTEMS	20	25	23	9	7	14	14
11190	12-05	DO YOU OPERATE LASER SYSTEMS	18	25	22	9	7	14	14
11191	12-06	DO YOU TROUBLESHOOT WIRE CONNECTIONS OF	7	7	7	2	0	6	6
LASER SYSTEMS									
11192	12-07	DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF LASER	7	16	13	18	4	20	20
SYSTEMS									
11193	12-08	DO YOU TROUBLESHOOT TO COMPONENT PARTS OF LASER	9	10	9	11	0	6	6
SYSTEMS									
11194	12-09	DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF LASER	16	11	12	14	7	20	20
SYSTEMS									
11195	12-10	DO YOU REMOVE OR REPLACE COMPONENT PARTS OF LASER	5	5	5	5	0	9	9
SYSTEMS									
11196	12-11	DO YOU USE OR REFER TO ANGSTROMS (A)	0	1	1	0	0	0	0
11197	12-12	DO YOU USE OR REFER TO ELECTRON ENERGY LEVELS	0	1	1	0	0	0	0
11198	12-13	DO YOU USE OR REFER TO GROUND STATE	0	1	1	0	0	0	0
11199	12-14	DO YOU USE OR REFER TO EXCITED STATE	0	1	1	0	0	0	0
11200	12-15	DO YOU USE OR REFER TO PACKET OF RADIATION	0	1	1	0	0	0	0
11201	12-16	DO YOU USE OR REFER TO PHOTONS	0	1	1	0	0	0	0
11202	12-17	DO YOU USE OR REFER TO SPONTANEOUS EMISSION	0	1	1	0	0	0	0
11203	12-18	DO YOU USE OR REFER TO STIMULATED EMISSION	0	1	1	0	0	0	0
11204	12-19	DO YOU USE OR REFER TO CONFERENCE OR INCOHERENCE	0	1	1	0	0	0	0
11205	12-20	DO YOU USE OR REFER TO INVERSION LEVEL	0	1	1	0	0	0	0
11206	12-21	DO YOU USE OR REFER TO MONOCHROMATIC	0	0	0	0	0	0	0
11207	12-22	DO YOU WORK WITH ACTIVE MATERIALS	0	0	0	0	0	0	0
11208	12-23	DO YOU WORK WITH PUMPING SOURCES	2	0	1	0	0	3	3
11209	12-24	DO YOU WORK WITH FULL SILVERED (100% REFLECTIVE)	0	0	0	0	0	0	0
MIRRORS									

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

	SPL 006	SPL 007	SPL 008	SPL 009	SPL 010	SPL 011
DY-TSK						
T1210 T2-25 DO YOU WORK WITH HALF SILVERED (92% REFLECTIVE) MIRRORS	0	1	1	0	0	0
T1211 T2-26 DO YOU WORK WITH HELICAL FLASHTUBES	0	2	1	2	0	0
T1212 T2-27 DO YOU WORK WITH RUBY	2	0	1	0	0	0
T1213 T2-28 DO YOU WORK WITH HELIUM-NEON	2	0	1	0	0	0
T1214 T2-29 DO YOU WORK WITH HELIUM-XENON	2	0	1	0	0	0
T1215 T2-30 DO YOU WORK WITH XENON	0	0	0	0	0	0
T1216 T2-31 DO YOU WORK WITH CESIUM-HELIUM	0	0	0	0	0	0
T1217 T2-32 DO YOU WORK WITH ARGON	4	1	2	0	0	3
T1218 T2-33 DO YOU WORK WITH NEODYMIUM IN GLASS	0	0	0	0	0	0
T1219 T2-34 DO YOU WORK WITH GALLIUM ARSENIDE	0	0	0	0	0	0
T1220 T3-01 IN YOUR PRESENT JOB DO YOU WORK WITH DISPLAY TUBES, SUCH AS DIRECT VIEW STORAGE (DVST) OR MULTIPLE MODE	2	1	1	0	0	0
T1221 T3-02 DO YOU INSPECT DVST OR MMST	2	1	1	0	0	0
T1222 T3-03 DO YOU CLEAN DVST OR MMST	2	1	1	0	0	0
T1223 T3-04 DO YOU ADJUST OR CALIBRATE DVST OR MMST	0	0	0	0	0	0
T1224 T3-05 DO YOU OPERATE SYSTEMS THAT CONTAIN DVST OR MMST	2	2	2	0	0	0
T1225 T3-06 DO YOU TROUBLESHOOT DVST OR MMST	0	0	0	0	0	0
CIRCUITS						
T1226 T3-07 DO YOU REMOVE OR REPLACE DVST OR MMST TUBES FROM MAJOR ASSEMBLIES OR UNITS	0	0	0	0	0	0
T1227 T3-08 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME THE VARIOUS ELEMENTS OF DVST	0	0	0	0	0	0
T1228 T3-09 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME THE VARIOUS ELEMENTS OF MMST	0	0	0	0	0	0
T1229 T3-10 DO YOU PERFORM TASKS ON FLOOD GUNS	0	0	0	0	0	0
T1230 T3-11 DO YOU PERFORM TASKS ON WRITE GUNS	0	0	0	0	0	0
T1231 T3-12 DO YOU PERFORM TASKS ON ATTACK GUNS	0	0	0	0	0	0
T1232 T3-13 DO YOU PERFORM TASKS ON ERASE GUNS	0	0	0	0	0	0
T1233 T3-14 DO YOU PERFORM TASKS ON STORAGE GRIDS	0	0	0	0	0	0
T1234 U1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY PROGRAMMING TASKS	0	1	1	0	0	0
U1235 U1-02 DO YOU USE OR REFER TO DECIMAL SYSTEMS	0	0	0	0	0	0
U1236 U1-03 DO YOU USE OR REFER TO PROGRAMS	0	0	0	0	0	0
U1237 U1-04 DO YOU USE OR REFER TO HEXIDECIMAL SYSTEMS	0	0	0	0	0	0
U1238 U1-05 DO YOU USE OR REFER TO 8-4-2-1 SYSTEMS	0	0	0	0	0	0
U1239 U1-06 DO YOU USE OR REFER TO FOUR SYSTEMS	0	0	0	0	0	0
U1240 U1-07 DO YOU USE OR REFER TO BINARY SYSTEMS	0	0	0	0	0	0
U1241 U1-08 DO YOU USE OR REFER TO TIME-SHARING	0	0	0	0	0	0
U1242 U1-09 DO YOU USE OR REFER TO DATA WORDS	0	0	0	0	0	0
U1243 U1-10 DO YOU USE OR REFER TO ADDRESS WORDS	0	0	0	0	0	0
U1244 U1-11 DO YOU USE OR REFER TO ADDRESS/SUBADDRESS	0	0	0	0	0	0
U1245 U1-12 DO YOU USE OR REFER TO STEERING/INFORMATION	0	0	0	0	0	0
U1246 U1-13 DO YOU USE OR REFER TO INFORMATION WORDS	0	0	0	0	0	0
U1247 U1-14 DO YOU PERFORM TASKS ON SINGLE LEVEL PROGRAMMING	0	0	0	0	0	0
U1248 U1-15 DO YOU PERFORM TASKS ON MULTI-LEVEL PROGRAMMING	0	0	0	0	0	0

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

0Y-15K

SPL SPL SPL SPL SPL SPL
006 007 008 009 010 011

U1249 U1-16 DO YOU PERFORM TASKS ON INPUT DEVICES	0	1	1	0	0	0
U1250 U1-17 DO YOU PERFORM TASKS ON STORAGE DEVICES	0	0	0	0	0	0
U1251 U1-18 DO YOU PERFORM TASKS ON ARITHMETIC SECTIONS	0	0	0	0	0	0
U1252 U1-19 DO YOU PERFORM TASKS ON CONTROL SECTIONS	2	0	1	0	0	0
U1253 U1-20 DO YOU PERFORM TASKS ON OUTPUT DEVICES	0	0	0	0	0	0
U1254 U1-21 DO YOU PERFORM TASKS ON POWER SUPPLIES	0	0	0	0	0	0
U1255 U2-01 DO YOU USE DECIBELS TO EXPRESS AMPLIFICATION AND ATTENUATION	0	4	2	7	7	9
U1256 U2-02 DO YOU USE LOGARITHMS TO COMPUTE OUTPUT POWER IN DECIBELS	0	0	0	0	4	0
U1257 U2-03 DO YOU USE LOGARITHMS TO COMPUTE ATTENUATION IN DECIBELS	0	0	0	0	9	0
U1258 U2-04 DUMMY TASK TO IDENTIFY INCUMBENTS WHO PERFORMED NO TASKS	4	3	3	7	11	9

UNITED STATES AIR FORCE
JOB INVENTORY

MISSILE SYSTEMS MAINTENANCE
AFSCS 31631L, 31651L, 31671L, 31693

A MATHEMATICS, DIRECT CURRENT, VOLTAGE, AND RESISTANCE		WITH AS CARBON, FIXED WIRE, SLIDE TAP, RHEOSTAT, OR POTENTIOMETER.	
A 1	A1-01 DO YOU USE PUBLICATIONS, SUCH AS A TECHNICAL ORDERS OR MAINTENANCE MANUALS, IN WHICH IT IS NECESSARY FOR YOU TO MULTIPLY OR DIVIDE BY A POWER OF 10 BEFORE YOU CAN APPLY THE INFORMATION FROM THE PUBLICATION IN A USEFUL WAY ON THE JOB.	A 33	A3-10 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE OHMIC VALUE OF RESISTANCE.
A 2	A1-02 DO YOU USE PUBLICATIONS, SUCH AS A TECHNICAL ORDERS OR MAINTENANCE MANUALS, IN WHICH IT IS NECESSARY FOR YOU TO MULTIPLY OR DIVIDE BY A POWER OF 10 BEFORE YOU CAN APPLY THE INFORMATION FROM THE PUBLICATION IN A USEFUL WAY ON THE JOB.	A 34	A3-11 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE TOLERANCE.
A 3	A1-03 DO YOU REARRANGE AND SOLVE FORMULAS OR EQUATIONS.	A 35	A3-12 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE FAILURE RATE.
A 4	A1-04 DO YOU CALCULATE THE SQUARE ROOT OF A QUANTITY.	A 36	A3-13 DO YOU MAKE DECISIONS IN WHICH YOU MUST DETERMINE HOW TWO OR MORE BATTERIES MUST BE CONNECTED TOGETHER TO ACHIEVE A SPECIFIC VOLTAGE.
A 5	A1-05 DO YOU SOLVE FOR UNKNOWN QUANTITIES.	A 37	A3-14 DO YOU USE OR REFER TO THE SCHEMATIC SYMBOLS WHICH REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES.
A 6	A1-06 DO YOU CONVERT NUMBERS TO LOGARITHMS.	A 38	A3-15 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES RESISTIVE CIRCUITS.
A 7	A1-07 DO YOU USE LOGARITHM TABLES IN ANY TYPE OF CALCULATIONS.	A 39	A3-16 DO YOU CALCULATE TOTAL CURRENT FOR SERIES RESISTIVE CIRCUITS.
A 8	A1-08 DO YOU SOLVE QUADRATIC EQUATIONS.	A 40	A3-17 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES RESISTIVE CIRCUITS.
A 9	A1-09 DO YOU USE THE NATURAL SYSTEM OF LOGARITHMS.	A 41	A3-18 DO YOU CALCULATE POWER DISSIPATION FOR SERIES RESISTIVE CIRCUITS.
A 10	A1-10 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES.	A 42	A3-19 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES PARALLEL RESISTIVE CIRCUITS.
A 11	A1-11 DO YOU WORK WITH TRIGONOMETRIC FUNCTIONS SUCH AS SINE, COSINE, OR TANGENT.	A 43	A3-20 DO YOU CALCULATE TOTAL CURRENT FOR SERIES PARALLEL RESISTIVE CIRCUITS.
A 12	A1-12 DO YOU DETERMINE AREAS OF PLANE FIGURES.	A 44	A3-21 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES PARALLEL RESISTIVE CIRCUITS.
A 13	A1-13 DO YOU SOLVE OR USE SIMULTANEOUS EQUATIONS.	A 45	A3-22 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR SERIES PARALLEL RESISTIVE CIRCUITS.
A 14	A1-14 DO YOU SOLVE OR USE PROPORTIONS.	A 46	A3-23 DO YOU CALCULATE POWER DISSIPATION FOR SERIES PARALLEL RESISTIVE CIRCUITS.
A 15	A2-01 DO YOU USE THE TERM VOLTAGE OR VOLT (V).	A 47	A3-24 DO YOU CALCULATE TOTAL RESISTANCE FOR PARALLEL RESISTIVE CIRCUITS.
A 16	A2-02 DO YOU USE THE TERM ELECTROMOTIVE FORCE (EMF).	A 48	A3-25 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RESISTIVE CIRCUITS.
A 17	A2-03 DO YOU USE THE TERM OHM.	A 49	A3-26 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR PARALLEL RESISTIVE CIRCUITS.
A 18	A2-04 DO YOU USE THE TERM ION.	A 50	A3-27 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR PARALLEL RESISTIVE CIRCUITS.
A 19	A2-05 DO YOU USE THE TERM DYNE.	A 51	A3-28 DO YOU CALCULATE POWER DISSIPATION FOR PARALLEL RESISTIVE CIRCUITS.
A 20	A2-06 DO YOU USE THE TERM AMPERE.		
A 21	A2-07 DO YOU USE THE TERM NEUTRON.		
A 22	A2-08 DO YOU USE THE TERM COULOMB.		
A 23	A2-09 DO YOU USE THE TERM PROTON.		
A 24	A3-01 DO YOU WORK WITH RESISTORS IN YOUR PRESENT JOB.		
A 25	A3-02 DO YOU INSPECT RESISTORS.		
A 26	A3-03 DO YOU CLEAN RESISTORS.		
A 27	A3-04 DO YOU ADJUST RESISTORS.		
A 28	A3-05 DO YOU CHECK OHMIC VALUE OF RESISTORS.		
A 29	A3-06 DO YOU REMOVE OR REPLACE RESISTORS.		
A 30	A3-07 DO YOU USE OR REFER TO TEMPERATURE COEFFICIENTS FOR RESISTORS ON ANY TASKS YOU PERFORM.		
A 31	A3-08 DO YOU USE OR REFER TO RESISTOR SYMBOLS SUCH AS FIXED RESISTOR SYMBOLS OR TAPPED RESISTOR SYMBOLS.		
A 32	A3-09 DO YOU IDENTIFY OR CLASSIFY THE RESISTORS YOU WORK		
		8	MULTIMETER USES, ALTERNATING CURRENT, INDUCTORS, AND INDUCTIVE
		R 52	R1-01 DO YOU MEASURE RESISTANCE.

8 53 81-02 DO YOU REPAIR OHMMETERS.
8 54 81-03 DO YOU MEASURE VOLTAGE.
8 55 81-04 DO YOU REPAIR VOLT METER.
8 56 81-05 DO YOU REPAIR AMMETERS.
8 57 81-06 DO YOU MEASURE CURRENT.
8 58 81-07 DO YOU USE MULTIMETER.
8 59 81-08 DO YOU DIRECTLY USE A QUANTITY OF CHARGE CALLED A COLUMB.
8 60 81-09 DO YOU READ SCHEMATICS.
8 61 82-01 DO YOU USE OR REFER TO THE TERM EFFECTIVE VOLTAGE
(RMS).
8 62 82-02 DO YOU USE OR REFER TO THE TERM PEAK TO PEAK VOLTAGE.
8 63 82-03 DO YOU USE OR REFER TO THE TERM AVERAGE VOLTAGE (AC).
8 64 82-04 DO YOU USE OR REFER TO THE TERM WAVE LENGTH.
8 65 82-05 DO YOU USE OR REFER TO THE TERM FREQUENCY.
8 66 82-06 DO YOU USE OR REFER TO THE TERM INSTANTANEOUS VALUE.
8 67 83-01 DO YOU WORK WITH INDUCTORS OR CIRCUITS CONTAINING INDUCTORS, CHOKE, OR CHOKE COILS IN YOUR PRESENT JOB.
8 68 83-02 DO YOU INSPECT INDUCTORS.
8 69 83-03 DO YOU CLEAN INDUCTORS.
8 70 83-04 DO YOU ADJUST INDUCTORS.
8 71 83-05 DO YOU REMOVE OR REPLACE INDUCTORS.
8 72 83-06 DO YOU USE OR REFER TO INDUCTANCE.
8 73 83-07 DO YOU USE OR REFER TO HENRIES.
8 74 83-08 DO YOU USE OR REFER TO INDUCTIVE REACTANCE.
8 75 83-09 DO YOU USE OR REFER TO COPPER LOSS IN INDUCTORS.
8 76 83-10 DO YOU USE OR REFER TO HYSTERESIS LOSS IN INDUCTORS.
8 77 83-11 DO YOU USE OR REFER TO EDDY CURRENT LOSS IN INDUCTORS.
8 78 83-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTANCE IS PROPORTIONAL TO THE SQUARE OF THE NUMBER OF TURNS OF THE COIL.
8 79 82-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE CROSS SECTIONAL AREA OF THE CORE.
8 80 82-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS INVERSELY PROPORTIONAL TO ITS LENGTH.
8 81 82-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE PERMEABILITY OF THE CORE MATERIAL.
8 82 82-16 DO YOU CALCULATE INDUCTANCE FOR PARTICULAR INDUCTORS USING FORMULAS.
8 83 83-17 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTANCE IN SERIES.
8 84 83-18 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS IN PARALLEL.
8 85 83-19 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS IN SERIES-PARALLEL CIRCUITS.
8 86 83-20 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LAGS VOLTAGE IN AC INDUCTOR CIRCUITS.
8 87 83-21 DO YOU CALCULATE INDUCTIVE REACTANCE.
8 88 83-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO FREQUENCY.
8 89 83-23 DO YOU WORK WITH POWER INDUCTORS.
8 90 83-24 DO YOU WORK WITH AUDIO FREQUENCY INDUCTORS.
8 91 83-25 DO YOU WORK WITH RADIO FREQUENCY INDUCTORS.
C CAPACITORS, CAPACITIVE REACTANCE, TRANSFORMERS, AND MAGNETISM
C 92 81-01 DO YOU WORK WITH CAPACITORS OR CIRCUITS CONTAINING CAPACITORS IN YOUR PRESENT JOB.
C 93 81-02 DO YOU INSPECT CAPACITORS.
C 94 81-03 DO YOU CLEAN CAPACITORS.
C 95 81-04 DO YOU ADJUST CAPACITORS.
C 96 81-05 DO YOU TEST CAPACITORS.
C 97 81-06 DO YOU DISCHARGE CAPACITORS.
C 98 81-07 DO YOU REMOVE OR REPLACE CAPACITORS.
C 99 81-08 DO YOU USE OR REFER TO DISTRIBUTED CAPACITANCE.
C 100 81-09 DO YOU USE OR REFER TO ORBITAL STRESS OF ELECTRONS IN A DIELECTRIC.
C 101 81-10 DO YOU USE OR REFER TO FARADS, MICROFARADS, OR PICOFARADS.
C 102 81-11 DO YOU USE OR REFER TO CAPACITANCE.
C 103 81-12 DO YOU USE OR REFER TO DIELECTRIC CONSTANT
C 104 81-13 DO YOU USE OR REFER TO WORKING VOLTAGE RATING OF CAPACITORS
C 105 81-14 DO YOU USE OR REFER TO CAPACITIVE REACTANCE
C 106 81-15 DO YOU USE OR REFER TO CAPACITOR COLOR CODES
C 107 81-16 DO YOU WORK WITH CAPACITORS IN DC CIRCUITS
C 108 81-17 DO YOU WORK WITH CAPACITORS IN AC CIRCUITS
C 109 81-18 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC
C 110 81-19 DO YOU WORK WITH CAPACITORS IN DON'T REMEMBER WHICH CIRCUITS
C 111 81-20 DO YOU CALCULATE CAPACITANCE FOR PARTICULAR CAPACITORS USING FORMULAS
C 112 81-21 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS DIRECTLY PROPORTIONAL TO THE DIELECTRIC CONSTANT
C 113 81-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS INVERSELY PROPORTIONAL TO THE DIELECTRIC THICKNESS
C 114 81-23 DO YOU CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN SERIES
C 115 81-24 DO YOU CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN PARALLEL
C 116 81-25 DO YOU CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN SERIES-PARALLEL CIRCUITS
C 117 81-26 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT DOES NOT FLOW THROUGH CAPACITORS, IT ONLY APPEARS TO DO SO
C 118 81-27 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LEADS VOLTAGE IN AC CAPACITOR CIRCUITS
C 119 81-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT

CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO FREQUENCY

C120 C1-29 DO YOU CALCULATE CAPACITIVE REACTANCE
C121 C1-30 DO YOU WORK WITH MOTOR-STATOR (VARIABLE) CAPACITORS
C122 C1-31 DO YOU WORK WITH COMPRESSION (FIXED) CAPACITORS
C123 C1-32 DO YOU WORK WITH ELECTROLYTIC (FIXED) CAPACITORS
C124 C1-33 DO YOU WORK WITH PAPER (FIXED) CAPACITORS
C125 C1-34 DO YOU WORK WITH MICA (FIXED) CAPACITORS
C126 C1-35 DO YOU WORK WITH CERAMIC (FIXED) CAPACITORS
C127 C1-36 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF CAPACITORS

C128 C2-01 DO YOU WORK WITH TRANSFORMERS IN YOUR PRESENT JOB
C129 C2-02 DO YOU INSPECT TRANSFORMERS

C130 C2-03 DO YOU CLEAN TRANSFORMERS

C131 C2-04 DO YOU ADJUST TRANSFORMERS

C132 C2-05 DO YOU TROUBLESHOOT TRANSFORMERS

C133 C2-06 DO YOU REMOVE OR REPLACE COMPLETE TRANSFORMERS

C134 C2-07 DO YOU REMOVE OR REPLACE TRANSFORMER PARTS, SUCH AS THE PRIMARY WINDING

C135 C2-08 DO YOU MAKE A DISTINCTION BETWEEN MUTUAL INDUCTANCE AND MUTUAL INDUCTANCE (M)

C136 C2-09 DO YOU USE THE SYMBOL FOR MUTUAL INDUCTANCE, M

C137 C2-10 DO YOU REFER TO OR USE THE COEFFICIENT OF COUPLING WHEN WORKING WITH TRANSFORMERS

C138 C2-11 DO YOU CALCULATE TURNS RATIOS FOR TRANSFORMERS USING CURRENT OR VOLTAGE RATIOS

C139 C2-12 DO YOU REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH TRANSFORMERS

C140 C2-13 DO YOU CALCULATE IMPEDANCE INTERACTIONS FOR TRANSFORMERS

C141 C2-14 DO YOU WORK WITH AUTOTRANSFORMERS

C142 C2-15 DO YOU WORK WITH POWER TRANSFORMERS

C143 C2-16 DO YOU WORK WITH AUDIO TRANSFORMERS

C144 C2-17 DO YOU WORK WITH RADIO FREQUENCY TRANSFORMERS

C145 C2-18 DO YOU WORK WITH DON'T REMEMBER WHAT TYPE OF TRANSFORMERS

C146 C2-19 DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE

C147 C2-20 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING RESISTANCE

C148 C2-21 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING OUTPUT VOLTAGES

C149 C2-22 DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO

C150 C2-23 DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO

C151 C2-24 DO YOU REFER TO BASIC TRANSFORMER SCHEMATIC SYMBOLS FOR TRANSFORMERS

C152 C2-25 DO YOU REFER TO MULTIPLE SECONDARY-WINDINGS SCHEMATIC SYMBOLS FOR TRANSFORMERS

C153 C2-26 DO YOU REFER TO MULTIPLE TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS

C154 C2-27 DO YOU REFER TO CENTER TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS

C155 C2-28 DO YOU REFER TO AIR CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS

C156 C2-29 DO YOU REFER TO IRON CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS

C157 C2-30 DO YOU REFER TO COMBINATIONS OF THE ABOVE SCHEMATIC SYMBOLS FOR TRANSFORMERS

C158 C2-31 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING SCHEMATIC SYMBOLS

C159 C2-32 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN TRANSFORMERS YOU WORK WITH

C160 C2-33 DO YOU REFER TO OR USE THE GENERAL RULE THAT THE TURNS RATIO OF A TRANSFORMER IS EQUAL TO THE VOLTAGE RATIO

C161 C2-34 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS FOR TRANSFORMERS

C162 C2-35 DO YOU CALCULATE VOLTAGE RATIOS FOR TRANSFORMERS USING TURNS RATIOS

C163 C2-36 DO YOU CALCULATE CURRENT RATIOS FOR TRANSFORMERS USING TURNS RATIOS

C164 C2-37 DOES YOUR JOB INVOLVE ANY TASKS DEALING WITH THREE PHASE TRANSFORMERS

C165 C2-38 DO YOU INSPECT THREE PHASE TRANSFORMERS

C166 C2-39 DO YOU CLEAN OR LUBRICATE THREE PHASE TRANSFORMERS

C167 C2-40 DO YOU ADJUST THREE PHASE TRANSFORMERS

C168 C2-41 DO YOU TROUBLESHOOT THREE PHASE TRANSFORMERS

C169 C2-42 DO YOU REMOVE OR REPLACE COMPLETE THREE PHASE TRANSFORMERS

C170 C2-43 DO YOU REMOVE OR REPLACE THREE PHASE TRANSFORMER PARTS SUCH AS WINDINGS

C171 C3-01 DO YOU USE OR REFER TO PERMANENT MAGNETS

C172 C3-02 DO YOU USE OR REFER TO TEMPORARY MAGNETS

C173 C3-03 DO YOU USE OR REFER TO RETENTIVITY OF MAGNETIC MATERIALS

C174 C3-04 DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC MATERIALS

C175 C3-05 DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC MATERIALS

C176 C3-06 DO YOU USE OR REFER TO RESIDUAL MAGNETISM

C177 C3-07 DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR FLUX

C178 C3-08 DO YOU USE OR REFER TO WEBER'S THEORY OF MAGNETISM

C179 C3-09 DO YOU USE OR REFER TO DOMAIN THEORY OF MAGNETISM

C180 C3-10 DO YOU USE OR REFER TO MAGNETIC INDUCTION

C181 C3-11 DO YOU USE OR REFER TO FLUX DENSITY

C182 C3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT FOR MAGNETIC POLES, LIKE POLES REPEL AND UNLIKE POLES ATTRACT

C183 C3-13 DO YOU USE THE LEFT HAND THUMB RULE TO FIND THE DIRECTION OF MAGNETIC FIELDS ABOUT STRAIGHT WIRES

C144 C3-14 DO YOU USE THE LEFT HAND THUMB RULE TO FIND THE NORTH POLE OF A CURRENT CARRYING COIL	D208 D1-24 DO YOU CALCULATE PHASE ANGLES BETWEEN IMPEDANCE AND RESISTANCE IN CAPACITIVE CIRCUITS
D RCL CIRCUITS, SERIES AND PARALLEL RESONANCE (TIME CONSTANTS), AND FILTERS	D209 D1-25 DO YOU CALCULATE TOTAL IMPEDANCE FOR SERIES RCL CIRCUITS
D185 D1-01 DO YOU WORK WITH RC, LR, RCL CIRCUITS IN YOUR PRESENT JOB	D210 D1-26 DO YOU CALCULATE IMPEDANCE ANGLES FOR SERIES RCL CIRCUITS
D186 D1-02 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL CIRCUITS	D211 D1-27 DO YOU CALCULATE APPARENT POWER (PA) FOR SERIES RCL CIRCUITS
D187 D1-03 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN WORKING WITH RCL CIRCUITS	D212 D1-28 DO YOU CALCULATE TRUE POWER (PT) FOR SERIES RCL CIRCUITS
D188 D1-04 DO YOU USE OR REFER TO SINE WHEN WORKING WITH RCL CIRCUITS	D213 D1-29 DO YOU CALCULATE POWER FACTORS (PF) FOR SERIES RCL CIRCUITS
D189 D1-05 DO YOU USE OR REFER TO COSINE WHEN WORKING WITH RCL CIRCUITS	D214 D1-30 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RCL CIRCUITS
D190 D1-06 DO YOU USE OR REFER TO TANGENT WHEN WORKING WITH RCL CIRCUITS	D215 D1-31 DO YOU CALCULATE IMPEDANCE ANGLES FOR PARALLEL RCL CIRCUITS
D191 D1-07 DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL CIRCUITS	D216 D1-32 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING THE ASSUMED VOLTAGE METHOD
D192 D1-08 DO YOU USE OR REFER TO TRUE POWER (PT) WHEN WORKING WITH RCL CIRCUITS	D217 D1-33 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING OHM'S LAW
D193 D1-09 DO YOU USE OR REFER TO MAXIMUM POWER (PM) WHEN WORKING WITH RCL CIRCUITS	D218 D1-34 DO YOU CHECK CAPACITORS USING OHMMETERS
D194 D1-10 DO YOU USE OR REFER TO AVERAGE POWER (PAVE) WHEN WORKING WITH RCL CIRCUITS	D219 D1-35 DO YOU CHECK CAPACITORS USING SUBSTITUTION
D195 D1-11 DO YOU USE OR REFER TO APPARENT POWER (PA) WHEN WORKING WITH RCL CIRCUITS	D220 D1-36 DO YOU CHECK INDUCTORS USING OHMMETERS
D196 D1-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING WITH RCL CIRCUITS	D221 D1-37 DO YOU CHECK INDUCTORS USING SUBSTITUTION
D197 D1-13 DO YOU USE OR REFER TO RESONANT CIRCUITS WHEN WORKING WITH RCL CIRCUITS	D222 D1-38 DO YOU USE OR REFER TO THE GENERAL RULE THAT $IMTA = Q, PF = 1$ AND $PA = PT$ FOR RESONANT CIRCUITS
D198 D1-14 DO YOU USE OR REFER TO BANDWIDTH WHEN WORKING WITH RCL CIRCUITS	D223 D1-39 DO YOU CALCULATE RESONANT FREQUENCIES FOR RCL CIRCUITS
D199 D1-15 DO YOU USE OR REFER TO SELECTIVITY WHEN WORKING WITH RCL CIRCUITS	D224 D1-40 DO YOU USE OR REFER TO THE GENERAL RULE THAT IMPEDANCE IS MINIMUM AND CURRENT MAXIMUM AT THE RESONANT FREQUENCY FOR SERIES RCL CIRCUITS
D200 D1-16 DO YOU USE OR REFER TO RESONANT FREQUENCY WHEN WORKING WITH RCL CIRCUITS	D225 D1-41 DO YOU USE OR REFER TO THE GENERAL RULE THAT LINE CURRENT IS MINIMUM AND IMPEDANCE MAXIMUM AT RESONANT FREQUENCY FOR PARALLEL RCL CIRCUITS
D201 D1-17 DO YOU USE OR REFER TO HALF POWER POINTS WHEN WORKING WITH RCL CIRCUITS	D226 D1-42 DO YOU USE OR REFER TO THE GENERAL RULE THAT HALF POWER POINTS ARE AT 70.7 PERCENT OF THE PEAK CURRENT VALUE
D202 D1-18 DO YOU USE OR REFER TO BANDPASS REGION WHEN WORKING WITH RCL CIRCUITS	D227 D1-43 DO YOU USE OR REFER TO THE GENERAL RULE THAT BANDWIDTH IS INVERSELY PROPORTIONAL TO Q
D203 D1-19 DO YOU USE OR REFER TO CIRCUIT Q WHEN WORKING WITH RCL CIRCUITS	D228 D1-44 DO YOU DETERMINE HOW CHANGES IN FREQUENCY, RESISTANCE, CAPACITANCE, OR INDUCTANCE WILL AFFECT CURRENT OR PHASE ANGLES FOR RCL CIRCUITS
D204 D1-20 DO YOU USE OR REFER TO TANK CIRCUITS WHEN WORKING WITH RCL CIRCUITS	D229 D2-01 IN YOUR PRESENT JOB, DO YOU WORK WITH, USE, OR REFER TO SERIES OR PARALLEL RESONANT CIRCUITS OR TIME CONSTANTS
D205 D1-21 DO YOU DETERMINE VALUES OF TRIGONOMETRIC FUNCTIONS USING FORMULAS	D230 D2-02 DO YOU WORK WITH, USE, OR REFER TO TIME CONSTANTS
D206 D1-22 DO YOU DRAW VOLTAGE, CURRENT, OR IMPEDANCE VECTOR DIAGRAMS FOR CIRCUITS	D231 D2-03 DO YOU WORK WITH, USE, OR REFER TO AVAILABLE VOLTAGE
D207 D1-23 DO YOU CALCULATE TOTAL IMPEDANCE FOR CAPACITIVE CIRCUITS	D232 D3-09 DO YOU WORK WITH, USE, OR REFER TO TRANSIENT INTERVALS
	D233 D2-05 DO YOU USE OR REFER TO THE GENERAL RULE THAT A CAPACITOR IS FULLY CHARGED (OR DISCHARGED) AFTER FIVE (5) TIME CONSTANTS (TC)
	D234 D2-06 DO YOU USE OR REFER TO UNIVERSAL TIME CONSTANT CHARTS
	D235 D2-07 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE

CIRCUIT CURRENT OR COMPONENT VOLTAGES AFTER A SPECIFIC TIME FOR RC OR LR CIRCUITS	
D236 D2-08 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT REACH SPECIFIC VALUES FOR RC OR LR CIRCUITS	E265 E1-05 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM RC COUPLING
D237 D2-09 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND COMPONENT VOLTAGES TO REACH SPECIFIC VALUES IN SPECIFIC TIMES	E266 E1-06 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM IMPEDANCE COUPLING
D238 D2-10 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT IN LR CIRCUITS REACHES ITS MINIMUM VALUE (OR ZERO) AFTER FIVE (5) TIME CONSTANTS	E267 E1-07 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM TRANSFORMER COUPLING
D239 D3-01 DO YOU WORK WITH CIRCUITS USED AS FILTERS IN YOUR PRESENT JOB	E268 E1-08 DO YOU WORK WITH DIRECTLY COUPLED CIRCUITS
D240 D3-02 DO YOU INSPECT FILTER CIRCUITS	E269 E1-09 DO YOU WORK WITH CAPACITIVE-RESISTIVE COUPLED CIRCUITS
D241 D3-03 DO YOU CLEAN FILTER CIRCUITS	E270 E1-10 DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED CIRCUITS
D242 D3-04 DO YOU ALIGN OR ADJUST FILTER CIRCUITS	E271 E1-11 DO YOU WORK WITH TRANSFORMER COUPLED CIRCUITS
D243 D3-05 DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT LEVEL	E272 E1-12 DON'T REMEMBER WHICH TYPE OF COUPLING CIRCUITS
D244 D3-06 DO YOU TROUBLESHOOT TO COMPONENT PARTS	E273 E2-01 IN YOUR PRESENT JOB, DO YOU PERFORM SOLDERING TECHNIQUES OR INSPECT OR EVALUATE SOLDERED CONNECTIONS
D245 D3-07 DO YOU REMOVE OR REPLACE THE COMPLETE FILTER CIRCUIT	E274 E2-02 DO YOU SELECT TYPE OF SOLDER TO USE
D246 D3-08 DO YOU REMOVE OR REPLACE FILTER CIRCUIT COMPONENT PARTS	E275 E2-03 DO YOU ADD FLUX TO CONNECTIONS
D247 D3-09 DO YOU WORK WITH LOW PASS FILTERS	E276 E2-04 DO YOU CLEAN CONNECTIONS USING SOLVENTS
D248 D3-10 DO YOU WORK WITH HIGH PASS FILTERS	E277 E2-05 DO YOU STRIP INSULATION FROM WIRES
D249 D3-11 DO YOU WORK WITH BANDPASS FILTERS	E278 E2-06 DO YOU CONNECT OR DISCONNECT HEAT SINKS
D250 D3-12 DO YOU WORK WITH BAND-REJECT FILTERS	E279 E2-07 DO YOU BEND OR SHAPE WIRES OR LEADS
D251 D3-13 DON'T REMEMBER WHICH TYPE OF FILTER YOU WORK WITH	E280 E2-08 DO YOU CUT WIRES
D252 D3-14 DO YOU WORK WITH L-SECTION FILTER CONFIGURATION	E281 E2-09 DO YOU FILE OR SHAPE SOLDERING IRON TIPS
D253 D3-15 DO YOU WORK WITH T-SECTION FILTER CONFIGURATION	E282 E2-10 DO YOU TIN SOLDERING IRON TIPS
D254 D3-16 DO YOU WORK WITH PI-SECTION FILTER CONFIGURATION	E283 E2-11 DO YOU CLEAN SOLDERING IRON TIPS
D255 D3-17 DON'T REMEMBER WHICH TYPE FILTER CONFIGURATION	E284 E2-12 DO YOU CLEAN ELECTRICAL SURFACES USING ERASERS
D256 D3-18 DO THE FILTERS YOU WORK WITH USE PARALLEL RESONANT CIRCUITS	E285 E2-13 DO YOU TIN OR PRE-TIN CONDUCTORS
D257 D3-19 DO THE FILTERS YOU WORK WITH USE SERIES-PARALLEL CIRCUITS	E286 E2-14 DO YOU INSPECT SOLDERED CONNECTIONS
D258 D3-20 DO THE FILTERS YOU WORK WITH USE SERIES RESONANT CIRCUITS	E287 E2-15 DO YOU DESOLDER CONNECTIONS BY WICKING
D259 D3-21 DON'T REMEMBER WHICH TYPE OF BASIC CIRCUIT	E288 E2-16 DO YOU DESOLDER CONNECTIONS USING VACUUM DESOLDERING
D260 D3-22 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CAPACITANCE OR INDUCTANCE VALUES REQUIRED FOR SPECIFIC FILTERS	
E COUPLING, SOLDERING, AND RELAYS	
E261 E1-01 DO YOU WORK WITH COUPLING DEVICES IN YOUR PRESENT JOB	E289 E2-17 DO YOU CUT COMPONENT LEADS TO REMOVE COMPONENTS
E262 E1-02 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH COUPLING	E290 E2-18 DO YOU CRUSH COMPONENTS FOR REMOVAL
E263 E1-03 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH IMPEDANCE COUPLING	E291 E2-19 DO YOU MAKE HARDWIRE CONNECTIONS
E264 E1-04 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO	E292 E2-20 DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS
	E293 E2-21 DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS ON PRINTED CIRCUIT BOARDS
	E294 E2-22 DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS ON PRINTED CIRCUIT BOARDS
	E295 E3-01 DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB
	E296 E3-02 DO YOU ADJUST RELAYS
	E297 E3-03 DO YOU CLEAN RELAYS
	E298 E3-04 DO YOU INSPECT RELAYS
	E299 E3-05 DO YOU REMOVE OR REPLACE COMPLETE RELAYS
	E300 E3-06 DO YOU REMOVE OR REPLACE PARTS OR RELAYS
	E301 E3-07 DO YOU TROUBLESHOOT RELAYS
	E302 E3-08 DO YOU STRAIGHTEN RELAY CONTACTS
	E303 E3-09 DO YOU PERFORM TASKS ON RELAY CONTACTS
	E304 E3-10 DO YOU PERFORM TASKS ON RELAY COILS
	E305 E3-11 DO YOU PERFORM TASKS ON RELAY COILS

E3-6 E3-12 DO YOU PERFORM TASKS ON RELAY ARMATURES	F343 F3-02 DO YOU USE OSCILLOSCOPES TO PERFORM OPERATIONAL CHECKS
E3-7 E3-13 DO YOU PERFORM TASKS ON RELAY SPRINGS	F344 F3-03 DO YOU USE OSCILLOSCOPES TO PERFORM ALIGNMENTS OR ADJUSTMENTS
E3-8 E3-14 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY OPEN (NO) SCHEMATIC SYMBOLS FOR RELAYS	F345 F3-04 DO YOU USE OSCILLOSCOPES TO TROUBLESHOOT ELECTRONIC CIRCUITS
E3-9 E3-15 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY CLOSED (NC) SCHEMATIC SYMBOLS FOR RELAYS	F346 F3-05 DO YOU USE OSCILLOSCOPES TO MEASURE FREQUENCY
E3-10 E3-16 DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW (SPDT) SCHEMATIC SYMBOLS FOR RELAYS	F347 F3-06 DO YOU USE OSCILLOSCOPES TO MEASURE TIME
E3-11 E3-17 DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW (DPDT) SCHEMATIC SYMBOLS FOR RELAYS	F348 F3-07 DO YOU USE OSCILLOSCOPES TO OBSERVE LIAJIOUS PATTERNS
E3-12 E3-18 DO YOU USE OR REFER TO OTHER RELAY SYMBOLS SCHEMATIC SYMBOLS FOR RELAYS	F349 F3-08 DO YOU USE OSCILLOSCOPES TO OBSERVE SIGNALS WHILE UTILIZING ATTENUATOR PROBES
E3-13 E3-19 DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY MEASURING RESISTANCE	F350 F3-09 DO YOU USE OSCILLOSCOPES TO MAKE FREQUENCY OR TIME MEASUREMENTS USING DELAY TIME MULTIPLIERS
	F351 F3-10 DO YOU USE OSCILLOSCOPES TO MEASURE AC VOLTAGE
	F352 F3-11 DO YOU USE OSCILLOSCOPES TO MEASURE OR OBSERVE SIGNALS AFTER FIRST ADJUSTING THE GAIN AND DC BAL CONTROLS
	F353 F3-12 DO YOU USE OSCILLOSCOPES TO MEASURE DC VOLTAGE
F MICROPHONES, SPEAKERS, AND OSCILLOSCOPES	
F314 F1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH MICROPHONES	6 SEMICONDUCTOR DIODES, TRANSISTORS, AND TRANSISTOR AMPLIFIERS
F315 F1-02 DO YOU INSPECT MICROPHONES	
F316 F1-03 DO YOU CLEAN MICROPHONES	G354 G1-01 DO YOU WORK WITH SEMICONDUCTOR DIODES IN YOUR PRESENT JOB
F317 F1-04 DO YOU OPERATE MICROPHONES	G355 G1-02 DO YOU INSPECT DIODES
F318 F1-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT PARTS OR MICROPHONES	G356 G1-03 DO YOU REMOVE OR REPLACE DIODES
F319 F1-06 DO YOU TROUBLESHOOT DOWN TO MICROPHONE PARTS	G357 G1-04 DO YOU CHECK DIODES USING AN INSTRUMENT
F320 F1-07 DO YOU REMOVE OR REPLACE COMPLETE MICROPHONES	G358 G1-05 DO YOU USE ENERGY LEVEL DIAGRAMS IN YOUR WORK WITH DIODES
F321 F1-08 DO YOU REMOVE OR REPLACE MICROPHONE PARTS	G359 G1-06 DO YOU USE PN JUNCTION DIODE CHARACTERISTIC CURVES, TOGETHER WITH VALUES OF FORWARD AND REVERSE BIAS VOLTAGE, TO COMPUTE FORWARD OR REVERSE LIAS RESISTANCE
F322 F1-09 DO YOU PERFORM TASKS ON CARBON MICROPHONES	G360 G1-07 DO YOU COMPUTE FORWARD OR REVERSE BIAS RESISTANCE FOR DIODES
F323 F1-10 DO YOU PERFORM TASKS ON CAPACITOR MICROPHONES	G361 G1-08 DO YOU USE OR REFER TO THE GENERAL RULE THAT TEMPERATURE CAN AFFECT THE OPERATION OF DIODES
F324 F1-11 DO YOU PERFORM TASKS ON CRYSTAL MICROPHONES	G362 G1-09 DO YOU IDENTIFY SEMICONDUCTOR DIODES AS OPPOSED TO OTHER ELECTRONIC COMPONENTS, SUCH AS RESISTORS, BASED ON THEIR PHYSICAL APPEARANCE
F325 F1-12 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES	G363 G1-10 DO YOU REFER TO OR DO YOU DETERMINE THE GENERAL EFFECTS OF DOPING ON CURRENT FLOW
F326 F1-13 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES	G364 G1-11 DO YOU USE OR REFER TO MEASUREMENTS OF FORWARD BIAS RESISTANCE
F327 F2-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH SPEAKERS	G365 G1-12 DO YOU USE OR REFER TO DIODE COLOR CODING
F328 F2-02 DO YOU INSPECT SPEAKERS	G366 G1-13 DO YOU USE OR REFER TO CENTRIFUGAL FORCE OF AN ELECTRON IN ORBIT AROUND A NUCLEUS
F329 F2-03 DO YOU CLEAN SPEAKERS	G367 G1-14 DO YOU USE OR REFER TO CENTRIPETAL FORCE OF AN ELECTRON IN ORBIT AROUND A NUCLEUS
F330 F2-04 DO YOU OPERATE SPEAKERS	G368 G1-15 DO YOU USE OR REFER TO DIODE NUMBERING SYSTEM, SUCH AS IN 538
F331 F2-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT PARTS OF SPEAKERS	G369 G1-16 DO YOU USE OR REFER TO KINETIC ENERGY OF AN ELECTRON MOVING IN ORBIT
F332 F2-06 DO YOU TROUBLESHOOT DOWN TO SPEAKER PARTS	G370 G1-17 DO YOU USE OR REFER TO POTENTIAL ENERGY OF AN
F333 F2-07 DO YOU REMOVE OR REPLACE COMPLETE SPEAKERS	
F334 F2-08 DO YOU REMOVE OR REPLACE SPEAKER PARTS	
F335 F2-09 DO YOU PERFORM ANY TASKS ON SPEAKER CONES	
F336 F2-10 DO YOU PERFORM ANY TASKS ON SPEAKER SPIDERS	
F337 F2-11 DO YOU PERFORM ANY TASKS ON SPEAKER FIELD COILS	
F338 F2-12 DO YOU PERFORM ANY TASKS ON SPEAKER VOICE COILS	
F339 F2-13 DO YOU PERFORM ANY TASKS ON SPEAKER PERMANENT MAGNETS	
F340 F2-14 DO YOU PERFORM ANY TASKS ON SPEAKER ELECTROMAGNETS	
F341 F2-15 DO YOU PERFORM ANY TASKS ON SPEAKER SOFT IRON CORES	
F342 F3-01 DO YOU USE OSCILLOSCOPES IN YOUR PRESENT JOB	

SEMICONDUCTORS

6371 G1-18 DO YOU USE OR REFER TO MEASUREMENTS OF REVERSE BIAS RESISTANCE
 6372 G1-19 DO YOU USE OR REFER TO NUMBER OF ELECTRONS IN A PARTICULAR SHELL OR ORBIT
 6373 G1-20 DO YOU USE OR REFER TO PERMISSIBLE ENERGY LEVELS OF AN ORBITING ELECTRON
 6374 G1-21 DO YOU USE OR REFER TO FORBIDDEN ENERGY LEVELS OF AN ORBITING ELECTRON
 6375 G1-22 DO YOU USE OR REFER TO VALENCE ELECTRONS (THOSE IN THE OUTERMOST SHELL)
 6376 G1-23 DO YOU USE OR REFER TO ATOMIC NUMBER (TOTAL NUMBER OF ELECTRONS IN ATOM)
 6377 G1-24 DO YOU USE OR REFER TO SYMBOLS ON THE DIODE WHICH INDICATE THE CATHODE END
 6378 G1-25 DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON
 6379 G1-26 DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE TEMPERATURE COEFFICIENTS OF RESISTANCE (AS TEMPERATURE INCREASES RESISTANCE DECREASES)
 6380 G1-27 DO YOU USE OR REFER TO PN JUNCTION DIODE CHARACTERISTIC CURVES (SUCH AS VOLTAGE - CURRENT CHARACTERISTIC CURVES) PERHAPS YOU DO THIS TO IDENTIFY POINTS OF STRUCTURAL BREAKDOWN OR OPERATING REGIONS
 6381 G1-28 DO YOU DETERMINE WHETHER PN JUNCTION DIODES ARE FORWARD BIASED OR REVERSE BIASED WHEN YOU READ OR INTERPRET CIRCUIT DIAGRAMS
 6382 G1-29 DO YOU USE OR REFER TO VALENCE BAND IN SEMICONDUCTOR MATERIALS
 6383 G1-30 DO YOU USE OR REFER TO FORBIDDEN BAND IN SEMICONDUCTOR MATERIALS
 6384 G1-31 DO YOU USE OR REFER TO CONDUCTION BAND IN SEMICONDUCTOR MATERIALS
 6385 G1-32 DO YOU USE OR REFER TO COVALENT BONDING IN SEMICONDUCTOR MATERIALS
 6386 G1-33 DO YOU USE OR REFER TO ELECTRON-HOLE PAIR CREATED IN SEMICONDUCTORS
 6387 G1-34 DO YOU USE OR REFER TO ELECTRON FLOW OR HOLE FLOW IN SEMICONDUCTORS
 6388 G1-35 DO YOU USE OR REFER TO DONOR IMPURITY IN SEMICONDUCTORS
 6389 G1-36 DO YOU USE OR REFER TO ACCEPTOR IMPURITY IN SEMICONDUCTORS
 6390 G1-37 DO YOU USE OR REFER TO P-TYPE SEMICONDUCTOR MATERIAL
 6391 G1-38 DO YOU USE OR REFER TO N-TYPE SEMICONDUCTOR MATERIAL
 6392 G1-39 DO YOU USE OR REFER TO MAJORITY CARRIERS IN SEMICONDUCTORS
 6393 G1-40 DO YOU USE OR REFER TO MINORITY CARRIERS IN SEMICONDUCTORS
 6394 G1-41 DO YOU USE OR REFER TO JUNCTION RECOMBINATION IN SEMICONDUCTORS
 6395 G1-42 DO YOU USE OR REFER TO DEPLETION REGION IN SEMICONDUCTORS
 6396 G1-43 DO YOU USE OR REFER TO RELATIONSHIP BETWEEN BARRIER WIDTH AND DIFFERENCE OF POTENTIAL
 6397 G1-44 DO YOU USE OR REFER TO THE 10:1 BACK TO FRONT RESISTANCE RATIO FOR DIODES
 6398 G1-45 DO YOU USE OR REFER TO BARRIER HEIGHT IN SEMICONDUCTORS
 6399 G1-46 DO YOU USE OR REFER TO DIODE SUBSTITUTION INFORMATION
 6400 G1-47 DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD CURRENT DIODE RATINGS
 6401 G1-48 DO YOU USE OR REFER TO PEAK RECURRENT FORWARD CURRENT DIODE RATINGS
 6402 G1-49 DO YOU USE OR REFER TO MAXIMUM SURGE CURRENT DIODE RATINGS
 6403 G1-50 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE DIODE RATINGS
 6404 G2-01 DO YOU WORK WITH TRANSISTORS IN YOUR PRESENT JOB.
 6405 G2-02 DO YOU INSPECT TRANSISTORS
 6406 G2-03 DO YOU REMOVE OR REPLACE TRANSISTORS
 6407 G2-04 DO YOU CHECK TRANSISTORS USING AN INSTRUMENT
 6408 G2-05 DO YOU USE OR REFER TO EMITTER - BASE (EB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS
 6409 G2-06 DO YOU USE OR REFER TO COLLECTOR - BASE (CB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS
 6410 G2-07 DO YOU USE OR REFER TO EMITTER - COLLECTOR (EC) RESISTANCE MEASUREMENTS
 6411 G2-08 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE EMITTER - BASE JUNCTION
 6412 G2-09 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION
 6413 G2-10 DO YOU USE OR REFER TO THE PHYSICAL SIZE OF THE TRANSISTOR STRUCTURE (COLLECTOR, BASE AND EMITTER)
 6414 G2-11 DO YOU USE OR REFER TO LEAKAGE CURRENT (ICBO) IN A TRANSISTOR
 6415 G2-12 DO YOU USE OR REFER TO TRANSISTOR SCHEMATIC SYMBOLS
 6416 G2-13 DO YOU USE OR REFER TO TRANSISTOR NOTATION SUCH AS Q1, Q2, Q3, ETC
 6417 G2-14 DO YOU USE OR REFER TO TRANSISTOR SUBSTITUTION INFORMATION
 6418 G2-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE TRANSISTOR BASE CURRENT IS NORMALLY SIGNIFICANTLY SMALLER THAN THE EMITTER CURRENT IE (USUALLY 18 BEING 2 TO 8 PERCENT OF IE)
 6419 G2-16 DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR TRANSISTORS
 6420 G2-17 DO YOU USE THE GENERAL RULE THAT LEAKAGE CURRENT (ICBO) IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES
 6421 G2-18 DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC CURVES
 6422 G2-19 DO YOU USE OR REFER TO BETA TRANSISTOR GAINS

6423 G3-20 DO YOU USE OR REFER TO ALPHA TRANSISTOR GAINS	
6424 G3-21 DO YOU USE OR REFER TO GAMMA TRANSISTOR GAINS	6449 G3-22 DO YOU CALCULATE THE POWER GAIN FOR A SPECIFIC TRANSISTOR USING A FORMULA THAT IS, DO YOU MULTIPLY THE CURRENT GAIN TIMES THE VOLTAGE GAIN TO DETERMINE THE POWER GAIN
6425 G3-22 DO YOU CALCULATE BETA TRANSISTOR GAINS	
6426 G3-23 DO YOU CALCULATE ALPHA TRANSISTOR GAINS	
6427 G3-24 DO YOU CALCULATE GAMMA TRANSISTOR GAINS	
6428 G3-01 DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR PRESENT JOB	6450 G3-23 DO YOU NEED TO KNOW THAT MORE COLLECTOR CURRENT IS GENERATED WITH LESS COLLECTOR VOLTAGE AS TEMPERATURE INCREASES (THIS AFFECTS THE STATIC OPERATING POINT EQ OF THE TRANSISTOR)
6429 G3-02 DO YOU INSPECT TRANSISTOR AMPLIFIERS	
6430 G3-03 DO YOU ALIGN OR ADJUST TRANSISTOR AMPLIFIERS	6451 G3-24 DO YOU COMPUTE THE STATIC OPERATING POINT EQ OF A TRANSISTOR AT DIFFERENT TEMPERATURES
6431 G3-04 DO YOU TROUBLESHOOT TO THE AMPLIFIER CIRCUIT LEVEL	6452 G3-25 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH EMITTER (SWAMPING) RESISTOR STABILIZATION
6432 G3-05 DO YOU TROUBLESHOOT TO AMPLIFIER COMPONENTS	
6433 G3-06 DO YOU REMOVE OR REPLACE THE COMPLETE AMPLIFIER	
6434 G3-07 DO YOU REMOVE OR REPLACE AMPLIFIER COMPONENTS	
6435 G3-08 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN COLLECTOR CURRENT WHICH RESULTS FROM A CHANGE IN BASE CURRENT	6453 G3-26 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH SELF-BIAS STABILIZATION
6436 G3-09 DO YOU USE OR REFER TO (COMMON EMITTER) THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN COLLECTOR CURRENT WHICH RESULTS FROM A SPECIFIC CHANGE IN BASE CURRENT	6454 G3-27 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH THERMISTOR STABILIZATION
6437 G3-10 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN COLLECTOR VOLTAGE WHICH RESULTS FROM A CHANGE IN BASE CURRENT	6455 G3-28 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH FORWARD BIAS DIODE STABILIZATION
6438 G3-11 DO YOU USE OR REFER TO (COMMON EMITTER) THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN COLLECTOR VOLTAGE WHICH RESULTS FROM A SPECIFIC CHANGE IN BASE CURRENT	6456 G3-29 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH REVERSE BIAS DIODE STABILIZATION
6439 G3-12 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN BASE CURRENT WHICH RESULTS FROM AN INPUT SIGNAL	6457 G3-30 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH DOUBLE DIODE STABILIZATION
6440 G3-13 DO YOU USE OR REFER TO (COMMON EMITTER) THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN BASE CURRENT WHICH RESULTS FROM A SPECIFIC INPUT SIGNAL	6458 G3-31 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM EMITTER (SWAMPING) RESISTOR STABILIZATION
6441 G3-14 DO YOU USE THE LOAD-LINE METHOD OF ANALYSIS IN YOUR CIRCUIT ANALYSIS (THIS METHOD REQUIRES YOU TO PLOT A LOAD-LINE ON A TRANSISTOR CHARACTERISTIC CURVE)	6459 G3-32 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM SELF-BIAS STABILIZATION
6442 G3-15 DO YOU USE OR REFER TO THE OPERATING POINT Q (QUIESCENT POINT) FOR A TRANSISTOR	6460 G3-33 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM THERMISTOR STABILIZATION
6443 G3-16 DO YOU CALCULATE THE SPECIFIC QUIESCENT POINT FOR A PARTICULAR TRANSISTOR	6461 G3-34 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM FORWARD BIAS DIODE STABILIZATION
6444 G3-17 DO YOU MEASURE VOLTAGE GAIN USED IN THE COMMON EMITTER CONFIGURATION	6462 G3-35 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM REVERSE BIAS DIODE STABILIZATION
6445 G3-18 DO YOU MEASURE CURRENT GAIN USED IN THE COMMON EMITTER CONFIGURATION	6463 G3-36 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM DOUBLE DIODE STABILIZATION
6446 G3-19 DO YOU MEASURE POWER GAIN USED IN THE COMMON EMITTER CONFIGURATION	6464 G3-37 DO YOU IDENTIFY AMPLITUDE DISTORTION FOR TRANSISTOR CIRCUITS
6447 G3-20 DO YOU CALCULATE THE VOLTAGE GAIN FOR SPECIFIC TRANSISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE CHANGE IN BASE-EMITTER VOLTAGE INTO THE CHANGE THE BASE COLLECTOR VOLTAGE TO DETERMINE THE VOLTAGE GAIN	6465 G3-38 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF AMPLITUDE DISTORTION
6448 G3-21 DO YOU CALCULATE THE CURRENT GAIN FOR SPECIFIC TRANSISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE CHANGE IN BASE CURRENT INTO THE CHANGE IN COLLECTOR	6466 G3-39 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR CIRCUITS
	6467 G3-40 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR CIRCUITS
	6468 G3-41 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF PHASE DISTORTION
	6469 G3-42 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE

CAUSES OF FREQUENCY DISTORTION

G470 G3-43 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING EMITTER RESISTANCE FOR TRANSISTOR AMPLIFIERS IN THE COMMON COLLECTOR CONFIGURATION

G471 G3-44 DO YOU DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS

G472 G3-45 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS

G473 G3-46 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS

G474 G3-47 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS

G475 G3-48 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS

G476 G3-49 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS

H SOLID STATE SPECIAL PURPOSE DEVICES, POWER SUPPLIES, AND OSCILLATORS

H477 H1-01 DO YOU USE OR REFER TO VARACTORS

H478 H1-02 DO YOU USE OR REFER TO TUNNEL DIODES

H479 H1-03 DO YOU USE OR REFER TO FIELD EFFECT TRANSISTORS (FET)

H480 H1-04 DO YOU USE OR REFER TO UNIJUNCTION TRANSISTORS

H481 H1-05 DO YOU USE OR REFER TO ZENER DIODES

H482 H1-06 DO YOU USE OR REFER TO INTEGRATED CIRCUITS

H483 H2-01 IN YOUR PRESENT JOB, DO YOU WORK WITH POWER SUPPLIES

H484 H2-02 DO YOU INSPECT POWER SUPPLIES

H485 H2-03 DO YOU CLEAN POWER SUPPLIES

H486 H2-04 DO YOU ALIGN OR ADJUST POWER SUPPLIES

H487 H2-05 DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL

H488 H2-06 DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS

H489 H2-07 DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES

H490 H2-08 DO YOU REMOVE OR REPLACE POWER SUPPLY COMPONENTS

H491 H2-09 DO YOU WORK WITH HALF-WAVE RECTIFIERS

H492 H2-10 DO YOU WORK WITH FULL-WAVE RECTIFIERS OTHER THAN BRIDGE RECTIFIERS

H493 H2-11 DO YOU WORK WITH BRIDGE RECTIFIERS

H494 H2-12 DO YOU WORK WITH THREE-PHASE RECTIFIERS

H495 H2-13 DO YOU USE OR REFER TO INPUT VOLTAGE

H496 H2-14 DO YOU USE OR REFER TO INPUT FREQUENCY

H497 H2-15 DO YOU USE OR REFER TO PEAK OUTPUT VOLTAGE

H498 H2-16 DO YOU USE OR REFER TO AVERAGE OUTPUT VOLTAGE

H499 H2-17 DO YOU USE OR REFER TO RIPPLE AMPLITUDE

H500 H2-18 DO YOU USE OR REFER TO RIPPLE FREQUENCY

H501 H2-19 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE

H502 H2-20 DO YOU USE OR REFER TO SHAPE OF OUTPUT WAVEFORMS

H503 H2-21 DO YOU USE OR REFER TO EFFECTIVE OUTPUT VOLTAGE

H504 H2-22 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE FILTERS

H505 H2-23 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE FILTERS

H506 H2-24 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE

INPUT L-TYPE FILTERS

H507 H2-25 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE INPUT L-TYPE FILTERS

H508 H2-26 DO YOU WORK WITH CIRCUITS WHICH EMPLOY LC PI-TYPE FILTERS

H509 H2-27 DO YOU WORK WITH CIRCUITS WHICH EMPLOY RC PI-TYPE FILTERS

H510 H2-28 DO YOU WORK WITH CIRCUITS WHICH EMPLOY DON'T REMEMBER WHICH TYPE OF FILTER

H511 H2-29 DO YOU HAVE THE OPTION OF REPLACING ONE TYPE OF FILTER WITH A DIFFERENT TYPE FILTER

H512 H3-01 DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB

H513 H3-02 DO YOU INSPECT OSCILLATORS

H514 H3-03 DO YOU ALIGN OR ADJUST OSCILLATORS

H515 H3-04 DO YOU REMOVE OR REPLACE COMPLETE OSCILLATORS

H516 H3-05 DO YOU REMOVE OR REPLACE OSCILLATOR COMPONENTS

H517 H3-06 DO YOU TROUBLESHOOT TO OSCILLATOR CIRCUIT LEVEL

H518 H3-07 DO YOU TROUBLESHOOT TO OSCILLATOR COMPONENTS

H519 H3-08 DO YOU USE OR REFER TO FEEDBACK

H520 H3-09 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES (FDD)

H521 H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY

H522 H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY

H523 H3-12 DO YOU USE OR REFER TO DAMPING

H524 H3-13 DO YOU USE OR REFER TO REGENERATIVE FEEDBACK

H525 H3-14 DO YOU USE OR REFER TO PIEZOELECTRIC EFFECT

H526 H3-15 DO YOU USE OR REFER TO CRITICAL DAMPING

H527 H3-16 DO YOU USE OR REFER TO UNDER DAMPING

H528 H3-17 DO YOU USE OR REFER TO OVER DAMPING

H529 H3-18 DO YOU WORK WITH OSCILLATORS WHICH USE LC TANK CIRCUITS AS FDD

H530 H3-19 DO YOU WORK WITH OSCILLATORS WHICH USE RC NETWORKS AS FDD

H531 H3-20 DO YOU WORK WITH OSCILLATORS WHICH USE CRYSTALS AS FDD

H532 H3-21 DO YOU WORK WITH OSCILLATORS WHICH USE DON'T REMEMBER WHICH TYPE OF FDD

H533 H3-22 DO YOU WORK WITH SERIES HARTLEY SINUSOIDAL OSCILLATORS

H534 H3-23 DO YOU WORK WITH SHUNT HARTLEY SINUSOIDAL OSCILLATORS

H535 H3-24 DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS

H536 H3-25 DO YOU WORK WITH CLAPP SINUSOIDAL OSCILLATORS

H537 H3-26 DO YOU WORK WITH BUTLER SINUSOIDAL OSCILLATORS

H538 H3-27 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF OSCILLATORS

I MULTIVIBRATORS, LIMITERS, CLAMPERS, AND ELECTRON TUBES

I539 I1-01 DO YOU WORK WITH MULTIVIBRATORS IN YOUR PRESENT JOB

I540 I1-02 DO YOU INSPECT WAVE GENERATING OR SHAPING CIRCUITS

I541 I1-03 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING CIRCUITS

1542 11-04 DO YOU CALIBRATE HAVE GENERATING OR SHAPING CIRCUITS	1581 13-17 DO YOU USE OR REFER TO GRID VOLTAGE
1543 11-05 DO YOU TROUBLESHOOT TO HAVE GENERATING OR SHAPING CIRCUITS	1582 13-18 DO YOU USE OR REFER TO GRID CURRENT
1544 11-06 DO YOU TROUBLESHOOT TO HAVE GENERATING OR SHAPING CIRCUIT COMPONENTS	1583 13-19 DO YOU USE OR REFER TO CATHODE VOLTAGE
1545 11-07 DO YOU REMOVE OR REPLACE COMPLETE HAVE GENERATING OR SHAPING CIRCUITS	1584 13-20 DO YOU USE OR REFER TO CATHODE CURRENT
1546 11-08 DO YOU REMOVE OR REPLACE HAVE GENERATING OR SHAPING COMPONENTS	1585 13-21 DO YOU USE OR REFER TO THE TRIODE AMPLIFICATION FACTOR (THE AMPLIFICATION FACTOR FOR TRIODES IS DEFINED AS THE RATIO OF CHANGE IN PLATE VOLTAGE TO A CHANGE IN GRID VOLTAGE)
1547 11-09 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK CIRCUITS	1586 13-22 DO YOU CALCULATE ACTUAL VALUES OF TRIODE AMPLIFICATION FACTORS
1548 11-10 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC NETWORKS	1587 13-23 DO YOU USE OR REFER TO MULTIGRID (TETRODE, PENTODE, ETC) AMPLIFICATION FACTORS
1549 11-11 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN CRYSTALS	1588 13-24 DO YOU USE OR REFER TO ELECTRON TUBE TRANSCONDUCTANCE (G, WHICH IS MEASURED IN AMOS)
1550 11-12 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN DON'T REMEMBER WHICH TYPE OF FOD	1589 13-25 DO YOU CALCULATE ACTUAL VALUES OF ELECTRON TUBE TRANSCONDUCTANCES
1551 11-13 DO YOU WORK WITH ASTABLE MULTIVIBRATORS	1590 13-26 DO YOU USE OR REFER TO THE ELECTRON TUBE PARAMETER CALLED AC PLATE RESISTANCE
1552 11-14 DO YOU WORK WITH MONOSTABLE MULTIVIBRATORS	1591 13-27 DO YOU CALCULATE ACTUAL VALUES OF AC PLATE RESISTANCE
1553 11-15 DO YOU WORK WITH BISTABLE MULTIVIBRATORS	1592 13-28 DO YOU USE OR REFER TO ELECTRON TUBE INTERELECTRODE CAPACITANCE
1554 11-16 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE MULTIVIBRATORS	1593 13-29 DO YOU USE OR REFER TO CHARACTERISTIC CURVES IN YOUR WORK WITH ELECTRON TUBES
1555 12-01 DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR PRESENT JOB	1594 13-30 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE VOLTAGE FOR A SPECIFIED BIAS
1556 12-02 DO YOU WORK WITH SERIES DIODE LIMITERS	1595 13-31 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE CURRENT FOR A SPECIFIED BIAS
1557 12-03 DO YOU WORK WITH SHUNT DIODE LIMITERS	1596 13-32 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR CUTOFF
1558 12-04 DO YOU WORK WITH LIMITERS WITH BIAS	1597 13-33 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR SATURATION
1559 12-05 DO YOU WORK WITH ZENER DIODE LIMITERS	1598 13-34 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER GAIN
1560 12-06 DO YOU WORK WITH TRANSISTOR LIMITERS	1599 13-35 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER EFFICIENCY
1561 12-07 DO YOU WORK WITH DON'T KNOW WHICH TYPE OF LIMITERS	1600 13-36 DO YOU USE TEST TUBE CHECKERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN
1562 12-08 DO YOU WORK WITH BASIC DIODE CLAMPING CIRCUITS	1601 13-37 DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN
1563 12-09 DO YOU WORK WITH DIODE CLAMPING CIRCUITS WITH BIAS	1602 13-38 DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN
1564 12-10 DO YOU WORK WITH DON'T KNOW WHICH TYPE OF CLAMPING CIRCUIT	1603 13-39 DO YOU USE CHARACTERISTIC CURVES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN
1565 13-01 IN YOUR PRESENT JOB, DO YOU WORK ON EQUIPMENT WHICH CONTAINS ELECTRON TUBES	1604 13-40 DO YOU CALCULATE ANY ELECTRON TUBE CAPACITANCES SUCH AS INPUT CAPACITANCE
1566 13-02 DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD	1605 13-41 DO YOU USE OR REFER TO TUBE SOCKET MODATION
1567 13-03 DO YOU USE TUBE TESTERS TO CHECK ELECTRON TUBES	1606 13-42 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS
1568 13-04 DO YOU USE MULTIMETERS TO CHECK ELECTRON TUBES	1607 13-43 DO YOU USE OR REFER TO THE TYPE OF MATERIAL OR THE OPERATING TEMPERATURE OF THE EMITTING SURFACE IN THE ELECTRON TUBES YOU WORK ON
1569 13-05 DO YOU USE SCOPES TO CHECK ELECTRON TUBES	1608 13-44 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL SUCH AS MANUALS OR CHARTS
1570 13-06 DO YOU USE SUBSTITUTION TO CHECK ELECTRON TUBES	
1571 13-07 DO YOU USE OR REFER TO CUTOFF	
1572 13-08 DO YOU USE OR REFER TO PEAK INVERSE VOLTAGE RATING	
1573 13-09 DO YOU USE OR REFER TO PEAK CURRENT RATING	
1574 13-10 DO YOU USE OR REFER TO TRANSIT TIME	
1575 13-11 DO YOU USE OR REFER TO PLATE DISSIPATION RATING	
1576 13-12 DO YOU USE OR REFER TO SATURATION	
1577 13-13 DO YOU USE OR REFER TO DC PLATE RESISTANCE	
1578 13-14 DO YOU COMPUTE ACTUAL VALUES OF THE DC PLATE RESISTANCE FOR ELECTRON TUBES	

J ELECTRON TUBE AMPLIFIERS AND CIRCUITS, SPECIAL PURPOSE ELECTRON TUBES, METEODYNING, MODULATION	
J609 J1-01 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS IN YOUR PRESENT JOB	K638 K1-01 DO YOU WORK ON AM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB
J610 J1-02 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS	K639 K1-02 DO YOU INSPECT AM TRANSMIT OR RECEIVE SYSTEMS
J611 J1-03 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS	K640 K1-03 DO YOU CLEAN AM TRANSMIT OR RECEIVE SYSTEMS
J612 J1-04 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS	K641 K1-04 DO YOU ALIGN OR ADJUST AM TRANSMIT OR RECEIVE SYSTEMS
J613 J1-05 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS	K642 K1-05 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS
J614 J1-06 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS	K643 K1-06 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS
J615 J1-07 DO YOU TROUBLESHOOT OR REPAIR DON'T KNOW WHICH TYPE OF AMPLIFIER	K644 K1-07 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE SYSTEMS
J616 J2-01 DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD CATHODE)	K645 K1-08 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE SYSTEMS
J617 J2-02 DO YOU WORK WITH CATHODE-RAY TUBES	K646 K1-09 DO YOU PERFORM TASKS ON RF OSCILLATORS
J618 J2-03 DO YOU USE OR REFER TO THE CHARACTERISTICS OF BEAM POWER TUBES	K647 K1-10 DO YOU PERFORM TASKS ON RF AMPLIFIERS
J619 J2-04 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH BEAM POWER TUBES ARE USED	K648 K1-11 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS
J620 J2-05 DO YOU USE OR REFER TO THE CHARACTERISTICS OF THYRATRONS	K649 K1-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS
J621 J2-06 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH THYRATRONS ARE USED	K650 K1-13 DO YOU PERFORM TASKS ON LOCAL OSCILLATORS
J622 J2-07 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTRON GUNS OF CATHODE-RAY TUBES (CRT)	K651 K1-14 DO YOU PERFORM TASKS ON IF AMPLIFIERS
J623 J2-08 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)	K652 K1-15 DO YOU PERFORM TASKS ON DETECTORS
J624 J2-09 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROSTATIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT)	K653 K1-16 DO YOU PERFORM TASKS ON DON'T REMEMBER WHICH AM STAGE
J625 J2-10 DO YOU USE OR REFER TO PHOSPHOR SCREENS	K654 K1-17 DO YOU USE OR REFER TO AMPLITUDE STABILIZATION IN TRANSMITTERS
J626 J2-11 DO YOU USE OR REFER TO AQUADAG COATINGS	K655 K1-18 DO YOU USE OR REFER TO FREQUENCY STABILIZATION IN TRANSMITTERS
J627 J2-12 DO YOU USE OR REFER TO ELECTRON OPTICS	K656 K1-19 DO YOU USE OR REFER TO SENSITIVITY OF RECEIVERS
J628 J2-13 DO YOU USE OR REFER TO PERSISTENCE	K657 K1-20 DO YOU USE OR REFER TO SELECTIVITY OF RECEIVERS
J629 J2-14 DO YOU USE OR REFER TO DECAY TIMES	K658 K1-21 DO YOU USE OR REFER TO 2ND HARMONIC DISTORTION
J630 J2-15 DO YOU USE OR REFER TO FLUORESCENCE	K659 K1-22 DO YOU USE OR REFER TO BANDPASS DISTORTION
J631 J2-16 DO YOU USE OR REFER TO PHOSPHORESCENCE	K660 K1-23 DO YOU USE OR REFER TO SQUARE LAW DISTORTION
J632 J3-01 DO YOU WORK ON TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB	K661 K1-24 DO YOU USE OR REFER TO CO-CHANNEL INTERFERENCE
J633 J3-02 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS	K662 K1-25 DO YOU USE OR REFER TO IMAGE FREQUENCIES IN RECEIVERS
J634 J3-03 DO YOU PERFORM TASKS ON FREQUENCY MIXERS	K663 K1-26 DO YOU USE OR REFER TO SIGNAL TO IMAGE RATIOS OR IMAGE REJECTION RATIOS
J635 J3-04 DO YOU USE OR REFER TO THE METEODYNING OF SIGNALS	K664 K1-27 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM TRANSMITTER SCHEMATIC DIAGRAMS
J636 J3-05 DO YOU WORK WITH TRANSMIT OR RECEIVE SYSTEMS	K665 K1-28 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM RECEIVER SCHEMATIC DIAGRAMS
J637 J3-06 DO YOU PERFORM TASKS ON MODULATED OSCILLATORS	K666 K2-01 DO YOU WORK WITH FM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB
	K667 K2-02 DO YOU INSPECT FM TRANSMIT OR RECEIVE SYSTEMS
	K668 K2-03 DO YOU CLEAN FM TRANSMIT OR RECEIVE SYSTEMS
	K669 K2-04 DO YOU ALIGN FM TRANSMIT OR RECEIVE SYSTEMS
	K670 K2-05 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE SYSTEMS
	K671 K2-06 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE SYSTEMS
	K672 K2-07 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE SYSTEMS
	K673 K2-08 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE SYSTEMS

K674 K2-09 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS
 K675 K2-10 DO YOU PERFORM TASKS ON FREQUENCY MULTIPLIERS
 K676 K2-11 DO YOU PERFORM TASKS ON DRIVERS (INTERMEDIATE AMPLIFIERS)
 K677 K2-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS
 K678 K2-13 DO YOU PERFORM TASKS ON RF AMPLIFIERS
 K679 K2-14 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS
 K680 K2-15 DO YOU PERFORM TASKS ON IF AMPLIFIERS
 K681 K2-16 DO YOU PERFORM TASKS ON LIMITERS
 K682 K2-17 DO YOU PERFORM TASKS ON FREQUENCY DISCRIMINATORS
 K683 K2-18 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS
 K684 K2-19 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS
 K685 K3-01 DO YOU CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL (BASE 8) NUMBERS
 K686 K3-02 DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS
 K687 K3-03 DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS
 K688 K3-04 DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS
 K689 K3-05 DO YOU CONVERT BINARY NUMBERS TO DECIMAL NUMBERS
 K690 K3-06 DO YOU CONVERT BINARY NUMBERS TO OCTAL NUMBERS
 K691 K3-07 DO YOU ADD BINARY NUMBERS TO GET A SUM
 K692 K3-08 DO YOU SUBTRACT BINARY NUMBERS USING THE END-AROUND-CARRY METHOD
 K693 K3-09 DO YOU SUBTRACT BINARY NUMBERS USING THE DIRECT SUBTRACTION METHOD
 K694 K3-10 DO YOU ADD OCTAL NUMBERS TO GET A SUM
 L LOGIC FUNCTIONS, BOOLEAN EQUATIONS, AND COUNTERS
 L695 L1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO LOGIC FUNCTIONS
 L696 L1-02 DO YOU CONSTRUCT TRUTH TABLES FOR AND LOGIC SYMBOLS OR GATES
 L697 L1-03 DO YOU CONSTRUCT TRUTH TABLES FOR OR LOGIC SYMBOLS OR GATES
 L698 L1-04 DO YOU CONSTRUCT TRUTH TABLES FOR AND OR OR LOGIC SYMBOLS WITH STATE INDICATORS
 L699 L1-05 DO YOU CONSTRUCT TRUTH TABLES FOR EXCLUSIVE OR LOGIC SYMBOLS OR GATES
 L700 L1-06 DO YOU USE OR REFER TO TRUTH TABLES FOR AND LOGIC SYMBOLS OR GATES
 L701 K1-07 DO YOU USE OR REFER TO TRUTH TABLES FOR OR LOGIC SYMBOLS OR GATES
 L702 K1-08 DO YOU USE OR REFER TO TRUTH TABLES FOR AND OR OR LOGIC SYMBOLS WITH STATE INDICATORS
 L703 L1-09 DO YOU USE OR REFER TO TRUTH TABLES FOR EXCLUSIVE OR LOGIC SYMBOLS
 L704 L1-10 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR AND GATES
 L705 L1-11 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR OR GATES
 L706 L1-12 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR NAND OR NOR GATES
 L707 L1-13 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR EXCLUSIVE OR GATES
 L708 L2-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC CIRCUITS
 L709 L2-02 DO YOU DRAW LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUITS
 L710 L2-03 DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS
 L711 L2-04 DO YOU DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN EQUATIONS
 L712 L2-05 DO YOU MEASURE INPUTS OR OUTPUTS OF LOGIC GATES
 L713 L2-06 DO YOU DEVELOP OR ANALYZE BOOLEAN EQUATIONS IN THE PROCESS OF TROUBLESHOOTING DIGITAL CIRCUITS
 L714 L2-07 DO YOU ANALYZE LOGIC CIRCUITS BY USING BOOLEAN ALGEBRA
 L715 L2-08 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUIT GATES
 L716 L2-09 DO YOU USE OR REFER TO TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS
 L717 L2-10 DO YOU USE OR REFER TO LOGIC DIAGRAMS CONSISTING OF MORE THAN ONE GATE
 L718 L2-11 DO YOU COMPUTE SUM AND CARRY EXPRESSIONS FOR SERIAL HALF OR FULL ADDER LOGIC DIAGRAMS
 L719 L2-12 DO YOU TRACE DATA FLOW THROUGH PARALLEL FULL ADDER LOGIC DIAGRAMS
 L720 L2-13 DO YOU WORK WITH A STABLE (FREE RUNNING) MULTIVIBRATOR
 L721 L2-14 DO YOU WORK WITH A STABLE (FLIP-FLOP) MULTIVIBRATOR
 L722 L2-15 DO YOU WORK WITH A MONOSTABLE (ONE-SHOT) MULTIVIBRATOR
 L723 L2-16 DO YOU USE OR REFER TO FLIP-FLOP MULTIVIBRATOR SYMBOLS
 L724 L2-17 DO YOU USE OR REFER TO SINGLE-SHOT MULTIVIBRATOR SYMBOLS
 L725 L2-18 DO YOU USE OR REFER TO FLIP-FLOP CIRCUIT DIAGRAMS
 L726 L2-19 DO YOU USE OR REFER TO FLIP-FLOP TRUTH TABLES
 L727 L2-20 DO YOU USE OR REFER TO COMPLEMENTED FLIP-FLOP LOGIC SYMBOLS
 L728 L2-21 DO YOU USE OR REFER TO COMPLEMENTING FLIP-FLOP LOGIC SYMBOLS
 L729 L2-22 DO YOU MEASURE OUTPUT WAVESHAPES OF LOGIC CIRCUITS
 L730 L2-23 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTED FLIP-FLOP SCHEMATIC DIAGRAMS
 L731 L2-24 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS
 L732 L2-25 DO YOU CONSTRUCT TRUTH TABLES FOR J-K FLIP-FLOP LOGIC SYMBOLS
 L733 L3-01 DO YOU WORK WITH DIGITAL COUNTERS IN YOUR PRESENT JOB
 L734 L3-02 DO YOU USE OR REFER TO UP-COUNTERS
 L735 L3-03 DO YOU USE OR REFER TO DOWN-COUNTERS

L736 L3-04 DO YOU USE OR REFER TO SERIAL COUNTERS
 L737 L3-05 DO YOU USE OR REFER TO PARALLEL COUNTERS
 L738 L3-06 DO YOU USE OR REFER TO RING COUNTERS
 L739 L3-07 DO YOU USE OR REFER TO DECADE COUNTERS
 L740 L3-08 DO YOU USE OR REFER TO COUNT DETECT CIRCUITS
 L741 L3-09 DO YOU USE OR REFER TO COUNT DETECT CIRCUITS
 L742 L3-10 DO YOU USE OR REFER TO UP CLOCKS
 L743 L3-11 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF
 UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS
 L744 L3-12 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF
 SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENTING FLIP-
 FLOPS
 L745 L3-13 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF
 DECADE COUNTERS
 L746 L3-14 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF
 RING COUNTERS
 L747 L3-15 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF
 SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE REGISTER
 L748 L3-16 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF
 SHIFT REGISTERS
 L749 L3-17 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF
 OTHER TYPE OF COUNTERS
 L750 L3-18 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT
 PULSES FOR UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS
 L751 L3-19 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT
 PULSES FOR SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENT-
 ING FLIP-FLOPS
 L752 L3-20 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT
 PULSES FOR SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE
 REGISTER
 L753 L3-21 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT
 PULSES FOR OTHER TYPES OF COUNTERS
 L754 L3-22 DO YOU CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF
 DECADE COUNTERS
 L755 L3-23 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP IN RING
 COUNTERS FOR SPECIFIC INPUT PULSES
 L756 L3-24 DO YOU DETERMINE THE APPROPRIATE AND GATE NECESSARY
 IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT
 M TIMING CIRCUITS, USE OF SIGNAL GENERATORS,
 MOTORS, AND GENERATORS
 M757 M1-01 DO YOU WORK WITH SAWTOOTH WAVE GENERATORS
 M758 M1-02 DO YOU WORK WITH TRAPEZOIDAL WAVE GENERATORS
 M759 M1-03 DO YOU WORK WITH PULSED OSCILLATORS WITH REGENERATIVE
 FEEDBACK
 M760 M1-04 DO YOU WORK WITH PULSED OSCILLATORS WITHOUT
 REGENERATIVE FEEDBACK
 M761 M1-05 DO YOU WORK WITH LOCKING OSCILLATORS
 M762 M1-06 DO YOU USE OR REFER TO RISE TIME
 M763 M1-07 DO YOU USE OR REFER TO FALL OR FLICKER TIME
 M764 M1-08 DO YOU USE OR REFER TO SWEEP TIME
 M765 M1-09 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH
 WAVEFORMS
 M766 M1-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH
 WAVEFORMS
 M767 M1-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH
 WAVEFORMS
 M768 M1-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH
 WAVEFORMS
 M769 M2-01 DO YOU USE SIGNAL GENERATORS IN YOUR PRESENT JOB
 M770 M2-02 DO YOU PERFORM OPERATIONAL CHECKS WHILE USING SIGNAL
 GENERATORS
 M771 M2-03 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS
 ADJUSTING, ALIGNING, OR CALIBRATING WHILE USING SIGNAL
 GENERATORS
 M772 M2-04 DO YOU TROUBLESHOOT TO AN ASSEMBLY OR SUBASSEMBLY
 WHILE USING SIGNAL GENERATORS
 M773 M2-05 DO YOU TROUBLESHOOT TO THE SMALLEST REPLACEABLE
 COMPONENT WHILE USING SIGNAL GENERATORS
 M774 M2-06 DO YOU USE AUDIO SINE-WAVE GENERATORS
 M775 M2-07 DO YOU USE AUDIO NON-SINUSOIDAL WAVE GENERATORS SUCH
 AS SQUARE WAVE, TRIANGLE, PULSE, OR SPIKE
 M776 M2-08 DO YOU USE RF GENERATORS LESS THAN 1,000 MH
 M777 M2-09 DO YOU USE RF GENERATORS GREATER THAN 1,000 MH
 M778 M2-10 DO YOU USE OTHER SPECIAL PURPOSE OR MULTI-FUNCTION
 GENERATORS
 M779 M3-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING
 WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS OR
 GENERATORS
 M780 M3-02 DO YOU INSPECT MOTORS
 M781 M3-03 DO YOU CLEAN OR LUBRICATE MOTORS
 M782 M3-04 DO YOU OPERATE MOTORS
 M783 M3-05 DO YOU REMOVE OR REPLACE COMPLETE MOTORS
 M784 M3-06 DO YOU REMOVE OR REPLACE MOTOR PARTS
 M785 M3-07 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE
 CONNECTIONS OF MOTORS
 M786 M3-08 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF MOTORS
 M787 M3-09 DO YOU PERFORM ANY TASKS ON FIELD COILS
 M788 M3-10 DO YOU PERFORM ANY TASKS ON ARMATURES
 M789 M3-11 DO YOU PERFORM ANY TASKS ON ROTORS
 M790 M3-12 DO YOU PERFORM ANY TASKS ON BRUSHES
 M791 M3-13 DO YOU PERFORM ANY TASKS ON SLIP RINGS
 M792 M3-14 DO YOU PERFORM ANY TASKS ON COMMUTATORS
 M793 M3-15 DO YOU PERFORM ANY TASKS ON POLE PIECES
 M794 M3-16 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OF THE
 FORCE OR TORQUE CREATED BY A MOTOR
 M795 M3-17 DO YOU DETERMINE OR MEASURE THE DIRECTION OF THE
 MECHANICAL FORCE OR TORQUE CREATED BY A MOTOR
 M796 M3-18 DO YOU DETERMINE OR MEASURE THE MAGNITUDE
 OR DIRECTION OF THE INDUCED VOLTAGE IN MOTORS
 M797 M3-19 DO YOU WORK WITH SYNCHRONOUS MOTORS
 M798 M3-20 DO YOU WORK WITH INDUCTION MOTORS
 M799 M3-21 DO YOU WORK WITH SPLIT-PHASE MOTORS

N800 N3-22 DO YOU WORK WITH SOME COMINATION OF THE ABOVE MOTORS	
N801 N3-23 DO YOU INSPECT GENERATORS	REACTORS
N802 N3-24 DO YOU CLEAN OR LUBRICATE GENERATORS	N830 N2-13 DO YOU USE OR REFER TO RESIDUAL MAGNETISM IN SATURABLE REACTORS
N803 N3-25 DO YOU OPERATE GENERATORS	N831 N2-14 DO YOU USE OR REFER TO FLUX DENSITY IN SATURABLE REACTORS
N804 N3-26 DO YOU REMOVE OR REPLACE COMPLETE GENERATORS	N832 N2-15 DO YOU USE OR REFER TO POINT OF SATURATION IN SATURABLE REACTORS
N805 N3-27 DO YOU REMOVE OR REPLACE GENERATOR PARTS	N833 N2-16 DO YOU USE OR REFER TO SATURABLE REACTION SCHEMATIC SYMBOLS
N806 N3-28 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS	N834 N3-01 DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT JOB
N807 N3-29 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS	N835 N3-02 DO YOU USE OR REFER TO TRANSIENT INTERVALS
METER MOVEMENTS, SATURABLE REACTORS, MAGNETIC AMPLIFIERS, AND WAVESHAPING CIRCUITS	N836 N3-03 DO YOU USE OR REFER TO PULSE WIDTH (PW)
N808 N1-01 DO YOU WORK WITH METERS IN YOUR PRESENT JOB	N837 N3-04 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)
N809 N1-02 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF PERMANENT MAGNETS	N838 N3-05 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF)
N810 N1-03 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF MOVING COILS	N839 N3-06 DO YOU USE OR REFER TO DIFFERENTIATING CIRCUITS
N811 N1-04 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF SPIRAL SPRINGS	N840 N3-07 DO YOU USE OR REFER TO INTEGRATING CIRCUITS
N812 N1-05 DO YOU READ METER SCALES	N841 N3-08 DO YOU USE OR REFER TO THE CLASSIFICATION OF TIME CONSTANTS (TC) AS LONG, MEDIUM, OR SHORT
N813 N1-06 DO YOU EXTEND THE RANGE OF AMMETERS	N842 N3-09 DO YOU DETERMINE WHETHER AN LR OR RC CIRCUIT IS DIFFERENTIATING OR INTEGRATING BASED ON THE TIME CONSTANT AND OUTPUT CONFIGURATION
N814 N1-07 DO YOU ZERO OHMMETERS	N843 N3-10 DO YOU WORK WITH SQUARE WAVE GENERATORS
N815 N1-08 DO YOU ZERO AMMETERS	N844 N3-11 DO YOU WORK WITH RECTANGULAR WAVE GENERATORS
N816 N1-09 DO YOU EXTEND THE RANGE OF VOLTMETERS	
N817 N1-10 DO YOU USE OR REFER TO VOLTMETER SENSITIVITY (EXPRESSED IN UNITS OF OHMS PER VOLT)	0 SINGLE SIDEBAND SYSTEMS, PULSE MODULATION SYSTEMS, AND ANTENNAS
N818 N2-01 DO YOU WORK WITH SATURABLE REACTORS OR MAGNETIC AMPLIFIERS IN YOUR PRESENT JOB	N845 N1-01 DO YOU WORK ON SINGLE SIDEBAND SYSTEMS IN YOUR PRESENT JOB
N819 N2-02 DO YOU INSPECT MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	N846 N1-02 DO YOU INSPECT SSB TRANSMIT OR RECEIVE SYSTEMS
N820 N2-03 DO YOU CLEAN MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	N847 N1-03 DO YOU CLEAN SSB TRANSMIT OR RECEIVE SYSTEMS
N821 N2-04 DO YOU ADJUST MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	N848 N1-04 DO YOU ALIGN SSB TRANSMIT OR RECEIVE SYSTEMS
N822 N2-05 DO YOU TROUBLESHOOT MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	N849 N1-05 DO YOU TROUBLESHOOT TO SSB TRANSMIT OR RECEIVE SYSTEMS
N823 N2-06 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIERS OR SATURABLE REACTORS	N850 N1-06 DO YOU TROUBLESHOOT TO SSB TRANSMIT OR RECEIVE COMPONENTS
N824 N2-07 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIER OR SATURABLE REACTOR COMPONENTS	N851 N1-07 DO YOU REMOVE OR REPLACE SSB TRANSMIT OR RECEIVE SYSTEMS
N825 N2-08 DO YOU USE OR REFER TO MYSTERIES CURVES OR LOOPS	N852 N1-08 DO YOU REMOVE OR REPLACE SSB TRANSMIT OR RECEIVE COMPONENTS
N826 N2-09 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SINGLE WINDING SATURABLE REACTORS	N853 N1-09 DO YOU PERFORM TASKS ON SSB AUDIO AMPLIFIERS
N827 N2-10 DO YOU MEASURE OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SINGLE WINDING SATURABLE REACTORS	N854 N1-10 DO YOU PERFORM TASKS ON SSB BALANCED MODULATORS
N828 N2-11 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS FOR MAGNETIC AMPLIFIERS	N855 N1-11 DO YOU PERFORM TASKS ON SSB CARRIER OSCILLATORS
N829 N2-12 DO YOU USE OR REFER TO COERCIVE FORCE IN SATURABLE	N856 N1-12 DO YOU PERFORM TASKS ON SSB LC FILTERS
	N857 N1-13 DO YOU PERFORM TASKS ON SSB CRYSTAL FILTERS
	N858 N1-14 DO YOU PERFORM TASKS ON SSB MECHANICAL FILTERS
	N859 N1-15 DO YOU PERFORM TASKS ON SSB OSCILLATORS
	N860 N1-16 DO YOU PERFORM TASKS ON SSB MIXERS
	N861 N1-17 DO YOU PERFORM TASKS ON SSB DRIVERS
	N862 N1-18 DO YOU PERFORM TASKS ON SSB POWER AMPLIFIERS

0863	01-19	DO YOU PERFORM TASKS ON SSB RF AMPLIFIERS	0896	02-22	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM RF AMPLIFIERS
0864	01-20	DO YOU PERFORM TASKS ON SSB FREQUENCY CONVERTERS	0897	02-23	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM FREQUENCY CONVERTERS
0865	01-21	DO YOU PERFORM TASKS ON SSB IF AMPLIFIERS	0898	02-24	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM IF AMPLIFIERS
0866	01-22	DO YOU PERFORM TASKS ON SSB DEMODULATORS	0899	02-25	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM DETECTORS
0867	01-23	DO YOU PERFORM TASKS ON SSB DON'T REMEMBER WHICH SSB SYSTEM STAGES	0900	02-26	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM VIDEO AMPLIFIERS
0868	01-24	DO YOU USE OR REFER TO SELECTIVE FADING	0901	02-27	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER VIDEO AMPLIFIERS
0869	01-25	DO YOU USE OR REFER TO PEAK POWER	0902	02-28	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM DON'T REMEMBER WHICH PULSE MODULATION SYSTEM STAGES
0870	01-26	DO YOU USE OR REFER TO FREQUENCY STABILITY	0903	02-29	DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF)
0871	01-27	DO YOU USE OR REFER TO RESPONSE CURVES FOR BANDWIDTH FILTERS	0904	02-30	DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)
0872	01-28	DO YOU CALCULATE PEAK POWER OR EFFECTIVE POWER OF SSB TRANSMITTERS	0905	02-31	DO YOU USE OR REFER TO PULSE WIDTH (PW)
0873	01-29	DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB TRANSMITTER SCHEMATIC DIAGRAMS	0906	02-32	DO YOU USE OR REFER TO PULSE SHAPE
0874	01-30	DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB RECEIVER SCHEMATIC DIAGRAMS	0907	02-33	DO YOU USE OR REFER TO PEAK POWER
0875	02-01	DO YOU WORK ON PULSE MODULATION SYSTEMS IN YOUR PRESENT JOB	0908	02-34	DO YOU USE OR REFER TO AVERAGE POWER
0876	02-02	DO YOU INSPECT PULSE MODULATION SYSTEMS	0909	02-35	DO YOU CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)
0877	02-03	DO YOU CLEAN PULSE MODULATION SYSTEMS	0910	02-36	DO YOU MEASURE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF)
0878	02-04	DO YOU ALIGN PULSE MODULATION SYSTEMS	0911	02-37	DO YOU USE FORMULAS TO CALCULATE AVERAGE POWER OR PEAK POWER OF PULSE MODULATION TRANSMIT SYSTEMS
0879	02-05	DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEMS	0912	02-38	DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION TRANSMITTER SCHEMATIC DIAGRAMS
0880	02-06	DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEM COMPONENTS	0913	02-39	DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION RECEIVER SCHEMATIC DIAGRAMS
0881	02-07	DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEMS	0914	03-01	DO YOU WORK WITH ANTENNAS IN YOUR PRESENT JOB
0882	02-08	DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEM COMPONENTS	0915	03-02	DO YOU INSPECT ANTENNAS
0883	02-09	DO YOU WORK ON PULSE-AMPLITUDE MODULATION (PAM) SYSTEMS	0916	03-03	DO YOU CLEAN ANTENNAS
0884	02-10	DO YOU WORK ON PULSE-DURATION MODULATION (PDM) SYSTEMS	0917	03-04	DO YOU PHYSICALLY ALIGN ANTENNAS
0885	02-11	DO YOU WORK ON PULSE-POSITION MODULATION (PPM) SYSTEMS	0918	03-05	DO YOU ELECTRICALLY ALIGN ANTENNAS
0886	02-12	DO YOU WORK ON PULSE-CODE MODULATION (PCM) SYSTEMS	0919	03-06	DO YOU TROUBLESHOOT TO ANTENNAS
0887	02-13	DO YOU WORK ON LINE PULSING MODULATION SYSTEMS	0920	03-07	DO YOU TROUBLESHOOT TO ANTENNA COMPONENTS
0888	02-14	DO YOU WORK ON DON'T REMEMBER WHICH TYPE OF MODULATION SYSTEM	0921	03-08	DO YOU REMOVE OR INSTALL ANTENNAS
0889	02-15	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM POWER SUPPLIES	0922	03-09	DO YOU REMOVE OR REPLACE COMPONENTS OF ANTENNAS
0890	02-16	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM CHARGING CHOKES AND CHARGING DIDDIES	0923	03-10	DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF E OR ELECTRIC FIELD LINES
0891	02-17	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE FORMING NETWORKS	0924	03-11	DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF H OR MAGNETIC FIELD LINES
0892	02-18	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TIMERS	0925	03-12	DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES IN RELATION TO THE ELECTRIC LINES OF FORCE FOR ANTENNAS
0893	02-19	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM SWITCHES SUCH AS GAS THERMISTORS	0926	03-13	DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE OF CORRECT LENGTH (HALF-WAVE) ACT AS INDUCTIVE LOADS TO THE GENERATOR
0894	02-20	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM PULSE TRANSFORMERS	0927	03-14	DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE LONGER THAN A HALF-WAVE ACT AS INDUCTIVE LOADS TO THE GENERATOR
0895	02-21	DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM TRANSMITTER TUBES			

0928 03-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE SHORTER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS TO THE GENERATOR	P955 P1-03 DO YOU REFER TO OR USE SKIN EFFECTS OF HIGH FREQUENCY CURRENTS IN TRANSMISSION LINES
0929 03-16 DO YOU WORK WITH HERTZ ANTENNAS	P956 P1-04 DO YOU REFER TO OR USE RADIATION LOSS IN TRANSMISSION LINES
0930 03-17 DO YOU WORK WITH MARCONI ANTENNAS	P957 P1-05 DO YOU USE OR REFER TO DIELECTRIC LOSS IN TRANSMISSION LINES
0931 03-18 DO YOU WORK WITH BROADSIDE ARRAYS	P958 P1-06 DO YOU USE OR REFER TO LEAKAGE LOSSES IN TRANSMISSION LINES
0932 03-19 DO YOU WORK WITH END-FIRE ARRAYS	P959 P1-07 DO YOU WORK WITH TWISTED PAIR TRANSMISSION LINES
0933 03-20 DO YOU WORK WITH CARDIOID ARRAYS	P960 P1-08 DO YOU WORK WITH TWIN LEAD TRANSMISSION LINES
0934 03-21 DO YOU WORK WITH COLLINER ARRAYS	P961 P1-09 DO YOU WORK WITH OPEN TWO-WIRE TRANSMISSION LINES
0935 03-22 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC INDUCTION FIELDS WHEN WORKING WITH ANTENNAS	P962 P1-10 DO YOU WORK WITH FLEXIBLE COAXIAL CABLE TRANSMISSION LINES
0936 03-23 DO YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF ANTENNAS	P963 P1-11 DO YOU WORK WITH RIGID COAXIAL CABLE TRANSMISSION LINES
0937 03-24 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC RADIATION FIELDS WHEN WORKING WITH ANTENNAS	P964 P1-12 DO YOU TROUBLESHOOT TRANSMISSION LINES
0938 03-25 DO YOU MEASURE ELECTROMAGNETIC RADIATION	P965 P1-13 DO YOU ANALYZE VOLTAGE OR CURRENT WAVEFORMS IN TRANSMISSION LINES TO DETERMINE THE TYPE OF TERMINATION (OPEN, SHORTED, CAPACITIVE, INDUCTIVE)
0939 03-26 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (M) COMPONENTS IN ANTENNA RADIATION	P966 P1-14 DO YOU SELECT APPROPRIATE TRANSMISSION LINES TERMINATIONS TO ACHIEVE DESIRED WAVEFORMS
0940 03-27 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (M) COMPONENTS IN ANTENNA INDUCTION FIELD	P967 P1-15 DO YOU USE OR REFER TO SCHEMATIC SYMBOLS FOR LINE TERMINATIONS IN TERMS OF CIRCUIT TERMINATIONS
0941 03-28 ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY POLARIZED	P968 P1-16 DO YOU MEASURE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES
0942 03-29 ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY POLARIZED	P969 P1-17 DO YOU CALCULATE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES
0943 03-30 DO YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS YOU WORK ON	P970 P1-18 DO YOU PERFORM THE CALCULATIONS NECESSARY TO DETERMINE THE IMPEDANCE AND LENGTH OF QUARTER - WAVELENGTH MATCHING TRANSFORMERS TO MATCH TRANSMISSION LINES TO LOADS
0944 03-31 DO YOU CONSTRUCT, OR MAKE THE CALCULATIONS NECESSARY TO CONSTRUCT, ANTENNAS OF CORRECT LENGTH FOR SPECIFIC WAVELENGTHS	P971 P1-19 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING MATCHING TRANSFORMERS
0945 03-32 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS	P972 P1-20 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING DELTA MATCHING
0946 03-33 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS DIRECTORS	P973 P1-21 DO YOU SELECT THE TYPE OF TRANSMISSION LINE NEEDED FOR PARTICULAR JOBS WITHOUT REFERRING TO TECHNICAL DATA
0947 03-34 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS REFLECTORS	P974 P1-22 DO YOU USE OR REFER TO THE TERM CHARACTERISTIC IMPEDANCE (Z0) OF TRANSMISSION LINES
0948 03-35 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN DOWN-T REMEMBER WHAT KIND OF ELEMENTS	P975 P1-23 DO YOU CALCULATE THE CHARACTERISTIC IMPEDANCE (Z0) OF TRANSMISSION LINES
0949 03-36 DO YOU WORK ON UNIDIRECTIONAL ANTENNAS	P976 P1-24 DO YOU USE OR REFER TO THE TERM CUTOFF FREQUENCY OF TRANSMISSION LINES
0950 03-37 DO YOU WORK ON BIDIRECTIONAL ANTENNAS	P977 P1-25 DO YOU USE OR REFER TO THE TERM VELOCITY FACTOR (K) OF TRANSMISSION LINES
0951 03-38 DO YOU WORK ON DOWN-T REMEMBER THE DIRECTIONALITY	P978 P1-26 DO YOU COMPUTE THE ELECTRICAL LENGTH OF TRANSMISSION LINES FOR PARTICULAR FREQUENCIES
0952 03-39 DO YOU WORK WITH ROTAR ANTENNA ARRAYS	P979 P1-27 DO YOU CONSTRUCT TRANSMISSION LINES OF PARTICULAR ELECTRICAL LENGTH FOR GIVEN FREQUENCIES
P TRANSMISSION LINES, WAVEGUIDES AND CAVITY RESONATORS, AND MICROWAVE AMPLIFIERS AND OSCILLATORS	P980 P1-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT AS THE FREQUENCY INCREASES AND THE PHYSICAL LENGTH OF TRANSMISSION LINES REMAIN CONSTANT, THE ELECTRICAL LENGTH
P953 P1-01 IN YOUR PRESENT JOB DO YOU WORK WITH TRANSMISSION LINES (TRANSMISSION LINES ARE DEFINED TO INCLUDE LEADS BETWEEN RECEIVERS AND ANTENNAS, TELEPHONE LEADS, AS WELL AS HIGH VOLTAGE POWER LINES, ETC. DO NOT CONSIDER WAVEGUIDES AS TRANSMISSION LINES)	
P954 P1-02 DO YOU REFER TO OR USE COMPER LOSS OR IZR LOSS IN	

INCREASES	"H" LINES IN WAVEGUIDES
P016 P1-29 DO YOU WORK WITH NONRESONANT (FLAT) TRANSMISSION LINES	P016 P2-33 DO YOU MEASURE THE TIME PHASE OF "E" OR "H" LINES IN WAVEGUIDES
P017 P1-30 DO YOU WORK WITH RESONANT TRANSMISSION LINES	P017 P2-34 DO YOU USE OR REFER TO THE SPACE QUADRATURE OF "E" OR "H" LINES IN WAVEGUIDES
P018 P1-31 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING STUB MATCHING	P018 P2-35 ARE HIGH POWER PROBES USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P019 P2-01 DO YOU WORK WITH WAVEGUIDES OR CAVITY RESONATORS IN YOUR PRESENT JOB	P019 P2-36 ARE LOW POWER PROBES USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P020 P2-02 DO YOU INSPECT WAVEGUIDES OR CAVITY RESONATORS	P020 P2-37 ARE LOOPS USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P021 P2-03 DO YOU CLEAN WAVEGUIDES OR CAVITY RESONATORS	P021 P2-38 ARE APERTURES (WINDOWS OR IRISES) USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P022 P2-04 DO YOU BEND WAVEGUIDES OR CAVITY RESONATORS	P022 P2-39 ARE DON'T REMEMBER THE KIND OF ENERGY COUPLING USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P023 P2-05 DO YOU TWIST WAVEGUIDES OR CAVITY RESONATORS	P023 P2-40 DO YOU DETERMINE WHERE PROBES SHOULD BE MOUNTED IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO TECHNICAL DATA
P024 P2-06 DO YOU PRESSURIZE WAVEGUIDES OR CAVITY RESONATORS	P024 P2-41 DO YOU DETERMINE THE POSITIONING OF LOOPS IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO TECHNICAL DATA
P025 P2-07 DO YOU PURGE WAVEGUIDES OR CAVITY RESONATORS	P025 P2-42 DO YOU DETERMINE THE POSITIONING OR SIZE OF APERTURES IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO TECHNICAL DATA
P026 P2-08 DO YOU TROUBLESHOOT WAVEGUIDES OR CAVITY RESONATORS	P026 P2-43 ARE CHOKE JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P027 P2-09 DO YOU REMOVE OR INSTALL COMPLETE WAVEGUIDES	P027 P2-44 ARE ROTATING JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P028 P2-10 DO YOU REMOVE OR INSTALL WAVEGUIDE SECTIONS	P028 P2-45 ARE DON'T REMEMBER THE KIND OF JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P029 P2-11 DO YOU REMOVE OR INSTALL DUMMY LOADS	P029 P2-46 DO YOU TUNE CAVITY RESONATORS USING CAPACITIVE TUNING
P030 P2-12 DO YOU REMOVE OR INSTALL H BENDS	P030 P2-47 DO YOU TUNE CAVITY RESONATORS USING INDUCTIVE TUNING
P031 P2-13 DO YOU REMOVE OR INSTALL OTHER BENDS	P031 P2-48 DO YOU TUNE CAVITY RESONATORS USING VOLUME TUNING
P032 P2-14 DO YOU REMOVE OR INSTALL ROTATING JOINTS	P032 P2-49 DO YOU TUNE CAVITY RESONATORS USING DON'T REMEMBER THE METHOD OF TUNING
P033 P2-15 DO YOU REMOVE OR INSTALL DIRECTIONAL COUPLERS	P033 P2-50 DO YOU MEASURE THE FREQUENCY OF SIGNALS IN CAVITY RESONATORS
P034 P2-16 DO YOU REMOVE OR INSTALL BIDIRECTIONAL COUPLERS	P034 P3-01 IN YOUR PRESENT JOB DO YOU WORK WITH KLYSTRONS, TRAVELING WAVE TUBES (TWT), PARAMETRIC AMPLIFIERS, OR MAGNETRONS
P035 P2-17 DO YOU USE OR REFER TO "A" WALL OF WAVEGUIDES	P035 P3-02 DO YOU USE OR REFER TO INTERELECTRODE CAPACITANCE
P036 P2-18 DO YOU USE OR REFER TO "B" WALL OF WAVEGUIDES	P036 P3-03 DO YOU USE OR REFER TO ELECTRON TRANSIT TIME
P037 P2-19 DO YOU USE OR REFER TO CUTOFF FREQUENCY OF WAVEGUIDES	P037 P3-04 DO YOU USE OR REFER TO LEAD INDUCTANCE
P038 P2-20 DO YOU USE OR REFER TO FREQUENCY-DETERMINING WALL OF WAVEGUIDES	P038 P3-05 DO YOU USE OR REFER TO RF LOSSES IN EXTERNAL CIRCUITRY
P039 P2-21 DO YOU USE OR REFER TO POWER-DETERMINING WALL OF WAVEGUIDES	P039 P3-06 DO YOU USE OR REFER TO PRINCIPLE OF ELECTRON VELOCITY MODULATION
P040 P2-22 DO YOU USE OR REFER TO ELECTRIC FIELD BOUNDARY CONDITIONS	P040 P3-07 DO YOU USE OR REFER TO ELECTRON BUNCHING
P041 P2-23 DO YOU USE OR REFER TO MAGNETIC FIELD BOUNDARY CONDITIONS	P041 P3-08 DO YOU WORK WITH TWO-CAVITY KLYSTRONS
P042 P2-24 DO YOU USE OR REFER TO DUPLEXER FIELD BOUNDARY CONDITIONS	P042 P3-09 DO YOU WORK WITH THREE-CAVITY KLYSTRONS
P043 P2-25 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST WAVEGUIDES ARE MADE WITH A "B" WALL SIZE OF .7 WAVELENGTHS OF THE OPERATING FREQUENCY	P043 P3-10 DO YOU WORK WITH REFLEX KLYSTRONS
P044 P2-26 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST "A" WALLS RANGE FROM .2 TO .5 WAVELENGTHS IN SIZE, WITH .35 USED AS AN AVERAGE	P044 P3-11 DO YOU WORK WITH TRAVELING-WAVE TUBES (TWT)
P045 P2-27 ARE YOU CONCERNED WITH THE MATERIAL (SUCH AS BRASS) WHICH WAVEGUIDES ARE MADE OF	
P046 P2-28 DO YOU COMPUTE THE LENGTH OF A WAVEGUIDE FOR SPECIFIC INSTALLATION	
P047 P2-29 DO YOU USE THE RIGHT HAND RULE TO DETERMINE THE DIRECTION OF PROPAGATION, DIRECTION OF "E" FIELD, OR DIRECTION OF "H" FIELD IN WAVEGUIDES	
P048 P2-30 DO YOU USE OR REFER TO THE TIME PHASE OF PEAK "E" OR	

P045 P3-12 DO YOU WORK WITH NONDEGENERATIVE PARAMETRIC AMPLIFIERS	P082 P3-49 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRIDS
P046 P3-13 DO YOU WORK WITH UP-CONVERTER PARAMETRIC AMPLIFIERS	P083 P3-50 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID CAVITY GAPS
P047 P3-14 DO YOU WORK WITH MAGNETRONS	P084 P3-51 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON RESONANT CAVITIES
P048 P3-15 DO YOU INSPECT KLYSTRONS OR TWT	P085 P3-52 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON MAGNETIC COUPLING LOOPS
P049 P3-16 DO YOU CLEAN KLYSTRONS OR TWT	P086 P3-53 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON FILAMENTS
P050 P3-17 DO YOU TUNE KLYSTRONS OR TWT ELECTRICALLY	P087 P3-54 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON CATHODES
P051 P3-18 DO YOU TUNE KLYSTRONS OR TWT MECHANICALLY	P088 P3-55 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON OUTPUT LEADS
P052 P3-19 DO YOU PERFORM OPERATIONAL CHECKS OF KLYSTRONS OR TWT	P089 P3-56 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES FILAMENTS
P053 P3-20 DO YOU TROUBLESHOOT KLYSTRONS OR TWT	P090 P3-57 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES CATHODES
P054 P3-21 DO YOU REMOVE OR REPLACE COMPLETE KLYSTRON OR TWT COMPONENTS	P091 P3-58 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES MODULATOR GRIDS
P055 P3-22 DO YOU REMOVE OR REPLACE KLYSTRON OR TWT COMPONENTS	P092 P3-59 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES ANODES
P056 P3-23 DO YOU INSPECT PARAMETRIC AMPLIFIERS	P093 P3-60 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES HELICES
P057 P3-24 DO YOU CLEAN PARAMETRIC AMPLIFIERS	P094 P3-61 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES COLLECTORS
P058 P3-25 DO YOU ADJUST PARAMETRIC AMPLIFIERS	P095 P3-62 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES MAGNETS
P059 P3-26 DO YOU TUNE PARAMETRIC AMPLIFIERS	P096 P3-63 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES ATTENUATORS
P060 P3-27 DO YOU PERFORM OPERATIONAL CHECKS OF PARAMETRIC AMPLIFIERS	P097 P3-64 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE CIRCULATORS
P061 P3-28 DO YOU TROUBLESHOOT PARAMETRIC AMPLIFIERS	P098 P3-65 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER SIGNAL CAVITIES
P062 P3-29 DO YOU REMOVE OR REPLACE COMPLETE PARAMETRIC AMPLIFIER	P099 P3-66 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER IDLER CAVITIES
P063 P3-30 DO YOU REMOVE OR REPLACE PARAMETRIC AMPLIFIER COMPONENTS	P100 P3-67 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER VARACTOR DIODES
P064 P3-31 DO YOU INSPECT MAGNETRONS	P101 P3-68 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE ISOLATORS
P065 P3-32 DO YOU CLEAN MAGNETRONS	P102 P3-69 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER REVERSE-BIAS BATTERIES
P066 P3-33 DO YOU ADJUST MAGNETRONS	P103 P3-70 DO YOU PERFORM TASKS ON ANODES
P067 P3-34 DO YOU TUNE MAGNETRONS	P104 P3-71 DO YOU PERFORM TASKS ON ANODE COOLING PINS
P068 P3-35 DO YOU PERFORM OPERATIONAL CHECKS OF MAGNETRONS	P105 P3-72 DO YOU PERFORM TASKS ON COUPLING LOOPS
P069 P3-36 DO YOU TROUBLESHOOT MAGNETRONS	P106 P3-73 DO YOU PERFORM TASKS ON HEATER LEADS
P070 P3-37 DO YOU REMOVE OR REPLACE COMPLETE MAGNETRON	P107 P3-74 DO YOU PERFORM TASKS ON RESONANT CAVITIES
P071 P3-38 DO YOU REMOVE OR REPLACE MAGNETRON COMPONENTS	P108 P3-75 DO YOU PERFORM TASKS ON CATHODES
P072 P3-39 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS COLLECTOR PLATES	P109 P3-76 DO YOU PERFORM TASKS ON MAGNETS
P073 P3-40 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CATCHER CAVITIES	
P074 P3-41 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CATCHER GRIDS	
P075 P3-42 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS FEEDBACK LOOPS	
P076 P3-43 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS DRIFT SPACES	
P077 P3-44 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS BUNCHER GRIDS	
P078 P3-45 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS BUNCHER CAVITIES	
P079 P3-46 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CONTROL GRIDS	
P080 P3-47 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CATHODES	
P081 P3-48 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON REPELLER (REFLECTOR) PLATES	
	P REGISTERS, STORAGE DEVICES, AND DIGITAL TO ANALOG CONVERTERS

Q110 Q1-01 DO YOU USE OR REFER TO STORAGE REGISTERS	
Q111 Q1-02 DO YOU USE OR REFER TO SHIFT REGISTERS	
Q112 Q1-03 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT REGISTERS	
Q113 Q1-04 DO YOU USE OR REFER TO LOGIC SYMBOLS OF STORAGE REGISTERS	Q137 Q3-12 DO YOU USE OR REFER TO COMPARE FUNCTION OF A/D CONVERTERS
Q114 Q1-05 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS	Q138 Q3-13 DO YOU USE OR REFER TO DIGITAL FUNCTION OF A/D CONVERTERS
Q115 Q1-06 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF REGISTERS	Q139 Q3-14 DO YOU PERFORM ANY TASKS ON MECHANICAL ANALOG-TO-DIGITAL (A/D) CONVERTERS
Q116 Q1-07 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES HAVE PASSED	K PHANTASTRONS, SCHMITT TRIGGERS, AND CABLE FABRICATION
Q117 Q2-01 DO YOU WORK WITH DIGITAL COUNTERS, REGISTERS, OR STORAGE DEVICES IN YOUR PRESENT JOB	R140 R1-01 DO YOU WORK WITH PHANTASTRON CIRCUITRY IN YOUR PRESEN. JOB
Q118 Q2-02 DO YOU USE OR REFER TO DELAY LINES	R141 R2-01 IN YOUR PRESENT JOB DO YOU WORK WITH SCHMITT TRIGGEM CIRCUITS
Q119 Q2-03 DO YOU USE OR REFER TO MAGNETIC CORES	R142 R2-02 DO YOU TRACE DATA FLOW THROUGH SCHMITT TRIGGER SCHEMATIC DIAGRAMS
Q120 Q2-04 DO YOU USE OR REFER TO MAGNETIC DRUMS	R143 R2-03 DO YOU USE OR REFER TO SCHMITT TRIGGER LOGIC SYMBOLS
Q121 Q2-05 DO YOU USE OR REFER TO MAGNETIC TAPES	R144 R3-01 IN YOUR PRESENT JOB DO YOU FABRICATE MULTICONDUCTOR CABLES
Q122 Q2-06 DO YOU USE OR REFER TO ACCESS TIME OR SPEED OR MEMORY SYSTEMS	R145 R3-02 DO YOU FABRICATE COAXIAL CABLES
Q123 Q2-07 DO YOU USE OR REFER TO WORD CAPACITY OF MEMORY SYSTEMS	S INPUT/OUTPUT DEVICES, PHOTO SENSITIVE DEVICES, AND SYNCHRONOUS VIBRATIONS
Q124 Q2-08 DO YOU USE OR REFER TO VOLATILITY OF MEMORY SYSTEMS	S146 S1-01 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS ON VISUAL READOUT SYSTEMS
Q125 Q2-09 DO YOU USE OR REFER TO LOGIC SYMBOL OF DELAY LINES	S147 S1-02 DO YOU PERFORM ANY TASKS ON MIXIE LIGHTS OR MIXIE LIGHT DECODER SYSTEMS
Q126 Q3-01 IN YOUR PRESENT JOB, DO YOU WORK WITH DIGITAL-TO-ANALOG (D/A) CONVERTERS, ANALOG-TO-DIGITAL (A/D) CONVERTERS, OR BINARY-TO-DECIMAL READOUT CONVERTERS	S148 S1-03 DO YOU ANALYZE MIXIE LIGHT DECODER SYSTEMS USING BOOLEAN ALGEBRA
Q127 Q3-02 DO YOU COMPUTE OUTPUT VOLTAGES FOR ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS FOR GIVEN INPUT VOLTAGES	S149 S2-01 DO YOU WORK WITH PHOTO TUBES IN YOUR PRESENT JOB
Q128 Q3-03 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE COUNT IN ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS IS DETERMINED BY ADDING THE DENOMINATORS OF THE RESISTORS	S150 S3-01 IN YOUR PRESENT JOB DO YOU WORK WITH CHOPPER CIRCUIT
Q129 Q3-04 DO YOU COMPUTE ANALOG VOLTAGES FOR GIVEN BINARY COUNTS IN ELECTRONIC DIGITAL-TO-ANALOG (D/A) CONVERTERS	S151 S3-02 DO YOU MEASURE EXCITATION FREQUENCIES
Q130 Q3-05 DO YOU PERFORM SAMPLE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	S152 S3-03 DO YOU MEASURE VOLTAGE-CURRENT PHASE RELATIONSHIPS
Q131 Q3-06 DO YOU PERFORM HOLD FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	S153 S3-04 DO YOU USE OR REFER TO EXCITATION FREQUENCIES
Q132 Q3-07 DO YOU PERFORM COMPARE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	S154 S3-05 DO YOU USE OR REFER TO VOLTAGE-CURRENT PHASE RELATIONSHIPS
Q133 Q3-08 DO YOU PERFORM DIGITIZE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	S155 S3-06 DO YOU USE SERVOS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION
Q134 Q3-09 DO YOU PERFORM DON'T REMEMBER WHICH FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	S156 S3-07 DO YOU USE DETECTORS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION
Q135 Q3-10 DO YOU USE OR REFER TO SAMPLE FUNCTION OF A/D CONVERTERS	S157 S3-08 DO YOU USE ERROR SIGNAL DEVICES IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION
Q136 Q3-11 DO YOU USE OR REFER TO HOLD FUNCTION OF A/D CONVERTERS	S158 S3-09 DO YOU USE COMPARISON CIRCUITS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION
	T INFRARED, LASERS, AND DISPLAY TUBES
	T159 T1-01 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH INFRARED SYSTEMS
	T160 T1-02 DO YOU INSPECT INFRARED SYSTEMS
	T161 T1-03 DO YOU CLEAN INFRARED SYSTEMS

1162 11-04 DO YOU ADJUST OR CALIBRATE INFRARED SYSTEMS	1203 12-18 DO YOU USE OR REFER TO STIMULATED EMISSION
1163 11-05 DO YOU OPERATE INFRARED SYSTEMS	1204 12-19 DO YOU USE OR REFER TO COHERENCE OR INCOHERENCE
1164 11-06 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF INFRARED SYSTEMS	1205 12-20 DO YOU USE OR REFER TO INVERSION LEVEL
1165 11-07 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF INFRARED SYSTEMS	1206 12-21 DO YOU USE OR REFER TO MONOCHROMATIC
1166 11-08 DO YOU TROUBLESHOOT DOWN TO INFRARED SYSTEM COMPONENT PARTS	1207 12-22 DO YOU WORK WITH ACTIVE MATERIALS
1167 11-09 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF INFRARED SYSTEMS	1208 12-23 DO YOU WORK WITH PUMPING SOURCES
1168 11-10 DO YOU REMOVE OR REPLACE INFRARED SYSTEM COMPONENT PARTS	1209 12-24 DO YOU WORK WITH FULL SILVERED (100% REFLECTIVE) MIRRORS
1169 11-11 DO YOU USE OR REFER TO FAR REGION	1210 12-25 DO YOU WORK WITH HALF SILVERED (92% REFLECTIVE) MIRRORS
1170 11-12 DO YOU USE OR REFER TO INTERMEDIATE REGION	1211 12-26 DO YOU WORK WITH HELICAL FLASHTUBES
1171 11-13 DO YOU USE OR REFER TO NEAR REGION	1212 12-27 DO YOU WORK WITH RUBY
1172 11-14 DO YOU USE OR REFER TO MICRON	1213 12-28 DO YOU WORK WITH HELIUM-NEON
1173 11-15 DO YOU USE OR REFER TO GRAY BODIES	1214 12-29 DO YOU WORK WITH HELIUM-XENON
1174 11-16 DO YOU USE OR REFER TO BLACK BODIES	1215 12-30 DO YOU WORK WITH XENON
1175 11-17 DO YOU USE OR REFER TO ABSORPTION	1216 12-31 DO YOU WORK WITH CESIUM-HELLIUM
1176 11-18 DO YOU USE OR REFER TO SCATTERING	1217 12-32 DO YOU WORK WITH ARGON
1177 11-19 DO YOU USE OR REFER TO ABSOLUTE ZERO	1218 12-33 DO YOU WORK WITH NEODYMIUM IN GLASS
1178 11-20 DO YOU PERFORM TASKS ON BLITZ	1219 12-34 DO YOU WORK WITH GALLIUM ARSENIDE
1179 11-21 DO YOU PERFORM TASKS ON TARGET BUTTONS	1220 12-35 DO YOU WORK WITH MULTIPLE MODE SUCH AS DIRECT VIEW STORAGE (DVS) OR MULTIPLE MODE STORAGE TUBES (MST)
1180 11-22 DO YOU PERFORM TASKS ON EJECTOR LENSES	1221 12-36 DO YOU INSPECT DVS OR MST
1181 11-23 DO YOU PERFORM TASKS ON OCULAR LENSES	1222 12-37 DO YOU CLEAN DVS OR MST
1182 11-24 DO YOU PERFORM TASKS ON CORRECTION LENSES	1223 12-38 DO YOU ADJUST OR CALIBRATE DVS OR MST
1183 11-25 DO YOU PERFORM TASKS ON FILTERS	1224 12-39 DO YOU OPERATE SYSTEMS THAT CONTAIN DVS OR MST
1184 11-26 DO YOU PERFORM TASKS ON SPHERICAL MIRRORS	1225 12-40 DO YOU TROUBLESHOOT DVS OR MST CIRCUITS
1185 11-27 DO YOU PERFORM TASKS ON PLANE MIRRORS	1226 12-41 DO YOU REMOVE OR REPLACE DVS OR MST TUBES FROM MAJOR ASSEMBLIES OR UNITS
1186 12-01 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH LASERS	1227 12-42 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME THE VARIOUS ELEMENTS OF DVS
1187 12-02 DO YOU INSPECT LASER SYSTEMS	1228 12-43 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME THE VARIOUS ELEMENTS OF MST
1188 12-03 DO YOU CLEAN LASER SYSTEMS	1229 12-44 DO YOU PERFORM TASKS ON FLOOD GUNS
1189 12-04 DO YOU OPERATE LASER SYSTEMS	1230 12-45 DO YOU PERFORM TASKS ON WRITE GUNS
1190 12-05 DO YOU OPERATE LASER SYSTEMS	1231 12-46 DO YOU PERFORM TASKS ON ATTACK GUNS
1191 12-06 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF LASER SYSTEMS	1232 12-47 DO YOU PERFORM TASKS ON ERASE GUNS
1192 12-07 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF LASER SYSTEMS	1233 12-48 DO YOU PERFORM TASKS ON STORAGE GRIDS
1193 12-08 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF LASER SYSTEMS	U PROGRAMMING, DB AND POWER RATIOS
1194 12-09 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF LASER SYSTEMS	U234 12-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY PROGRAMMING TASKS
1195 12-10 DO YOU REMOVE OR REPLACE COMPONENT PARTS OF LASER SYSTEMS	U235 12-02 DO YOU USE OR REFER TO DECIMAL SYSTEMS
1196 12-11 DO YOU USE OR REFER TO ANGSTROMS (A)	U236 12-03 DO YOU USE OR REFER TO PROGRAMS
1197 12-12 DO YOU USE OR REFER TO ELECTRON ENERGY LEVELS	U237 12-04 DO YOU USE OR REFER TO HEXIDECIMAL SYSTEMS
1198 12-13 DO YOU USE OR REFER TO GROUND STATE	U238 12-05 DO YOU USE OR REFER TO 8-4-2-1 SYSTEMS
1199 12-14 DO YOU USE OR REFER TO EXCITED STATE	U239 12-06 DO YOU USE OR REFER TO FOUR SYSTEMS
1200 12-15 DO YOU USE OR REFER TO PACKET OF RADIATION	U240 12-07 DO YOU USE OR REFER TO BINARY SYSTEMS
1201 12-16 DO YOU USE OR REFER TO PHOTONS	U241 12-08 DO YOU USE OR REFER TO TIME-SHARING
1202 12-17 DO YOU USE OR REFER TO SPONTANEOUS EMISSION	U242 12-09 DO YOU USE OR REFER TO DATA WORDS

JOB INVENTORY (DUTY/TASK TITLES)

U243 U1-10 DO YOU USE OR REFER TO ADDRESS WORDS
 U244 U1-11 DO YOU USE OR REFER TO ADDRESS/SUBADDRESS
 U245 U1-12 DO YOU USE OR REFER TO STEERING/INFORMATION
 U246 U1-13 DO YOU USE OR REFER TO INFORMATION WORDS
 U247 U1-14 DO YOU PERFORM TASKS ON SINGLE LEVEL PROGRAMMING
 U248 U1-15 DO YOU PERFORM TASKS ON MULTI-LEVEL PROGRAMMING
 U249 U1-16 DO YOU PERFORM TASKS ON INPUT DEVICES
 U250 U1-17 DO YOU PERFORM TASKS ON STORAGE DEVICES
 U251 U1-18 DO YOU PERFORM TASKS ON ARITHMETIC SECTIONS
 U252 U1-19 DO YOU PERFORM TASKS ON CONTROL SECTIONS
 U253 U1-20 DO YOU PERFORM TASKS ON OUTPUT DEVICES
 U254 U1-21 DO YOU PERFORM TASKS ON POWER SUPPLIES
 U255 U2-01 DO YOU USE DECIBELS TO EXPRESS AMPLIFICATION AND
 ATTENUATION
 U256 U2-02 DO YOU USE LOGARITHMS TO COMPUTE OUTPUT POWER IN
 DECIBELS
 U257 U2-03 DO YOU USE LOGARITHMS TO COMPUTE ATTENUATION IN
 DECIBELS
 U258 U2-04 DUMMY TASK TO IDENTIFY INCUMBENTS WHO PERFORMED
 NO TASKS

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AIR FORCE OCCUPATIONAL MEASUREMENT CENTER LACKLAND A--ETC F/G 5/9
ELECTRONICS PRINCIPLES OVERSEAS SUPPLEMENT TO THE MISSILE MAINT--ETC(U)
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<table border="0"> <tr> <td>Electronic principles</td> <td>Electronics</td> </tr> <tr> <td>Basic electronics</td> <td>Air Force Training</td> </tr> <tr> <td>Avionics</td> <td>Teaching Methods</td> </tr> <tr> <td>Electronic Equipment</td> <td>Training</td> </tr> <tr> <td>Electronic Technicians</td> <td></td> </tr> </table>			Electronic principles	Electronics	Basic electronics	Air Force Training	Avionics	Teaching Methods	Electronic Equipment	Training	Electronic Technicians	
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Electronic Technicians												
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<p>This report summarizes the results of an Electronics Principles survey of Missile Maintenance personnel assigned overseas and supplements the EPI report for the Missile Maintenance career ladder (AFPT 90-316-222, dated 5 November 1976) which was restricted to a selected sample of CONUS personnel. This report gives a detailed listing of the technical tasks and knowledge needed to perform the jobs within the specialty or career ladder.</p> <p style="text-align: center;">OVER CONTINUED</p>												

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↙ This specialty has the following functions:

Performs maintenance on missile and Remotely Piloted Vehicle (RPV) guidance and control systems, subsystems, and components; operates, calibrates, and maintains related test, monitoring, and checkout equipment; performs malfunction analysis, and repairs, maintains, modifies, inspects, and services missile and RPV systems, subsystems, and ground operating equipment to component level; performs field maintenance on electronic test, launch control, checkout, and related ground support equipment used by missile activities; and assembles and disassembles missiles and RPVs.

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